

Audit

Report



CERTIFICATION OF THE DEFENSE
CIVILIAN PERSONNEL DATA SYSTEM

Report No. D-2001-137

June 7, 2001

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Abstract

The Clinger-Cohen Act mandated changes to the way DoD selects and manages information technology resources and emphasized that information technology was an enabler of business process reengineering. The Chief Information Officer, DoD, oversees all DoD information technology investments. To help ensure effective oversight of DoD information technology investments, Congress included Section 8121(b) in the FY 2000 DoD Appropriations Act. This act required the Chief Information Officer, DoD, to certify, prior to Milestone I, II, or III approval, that major automated information systems were being developed in accordance with the Clinger-Cohen Act. Section 8121(b) also required the Chief Information Officer, DoD, to inform Congress of the certifications and to provide confirmation that DoD Components took certain steps with respect to the system certification, to include business process reengineering, analysis of alternatives, economic analysis, performance measures, and an information assurance strategy. This audit was the first in a series of planned audits of information systems that were certified by DoD as being compliant with the Clinger-Cohen Act. DoD authorized the development of the modern Defense Civilian Personnel Data System in December 1994 to support the regionalization of civilian personnel operations, which included workforce reduction. DoD planned to concurrently field the Defense Civilian Personnel Data System modernization and complete regionalization by December 1998. DoD completed regionalization by June 1999, but, as of May 2001, full-scale deployment of Defense Civilian Personnel Data System had occurred at only 5 of the 26 proposed sites. Of the remaining 21 sites, program officials expanded testing at 6 of the sites and planned to complete deployment for 15 sites by September 2001, almost two years after the completion of reengineering. On May 10, 2000, the Chief Information Officer, DoD, certified that the Defense Civilian Personnel Data System was being developed in accordance with the Clinger-Cohen Act.

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Acronyms

ADM	Acquisition Decision Memorandum
CIO	Chief Information Officer
CCA	Clinger-Cohen Act
CPMS	Civilian Personnel Management Service
DCPDS	Defense Civilian Personnel Data System
GAO	General Accounting Office
IPT	Integrated Product Team
IT	Information Technology
MDA	Milestone Decision Authority



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-4704

June 7, 2001

**MEMORANDUM FOR ASSISTANT SECRETARY OF DEFENSE (COMMAND,
CONTROL, COMMUNICATIONS, AND INTELLIGENCE)
DIRECTOR, CIVILIAN PERSONNEL MANAGEMENT
SERVICE**

**Subject: Audit Report on Certification of the Defense Civilian Personnel
Data System (Report No. D-2001-137)**

We are providing this audit report for review and comment. We considered management comments on a draft of this report when preparing the final report.

DoD Directive 7650.3 requires that all recommendations be resolved promptly. The Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) comments were partially responsive to Recommendations 1.a., 1.b., and 1.d. Additionally, as a result of management comments, we revised Recommendation 1.c. The Director, Civilian Personnel Management Service, nonconcurred with Recommendations 2.a. and 2.b. We revised both recommendations in recognition of management concerns. We request that the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) and the Director, Civilian Personnel Management Service, provide additional comments by July 9, 2001.

Questions on the audit should be directed to Ms. Wanda A. Hopkins at (703) 604-9049 (DSN 664-9049) (wahopkins@dodig.osd.mil) or Mr. James W. Hutchinson at (703) 604-9060 (DSN 664-9060) (jhutchinson@dodig.osd.mil). See Appendix E for the report distribution. The audit team members are listed inside the back cover.

A handwritten signature in dark ink, appearing to read "Thomas F. Gimble", is positioned above the printed name.

Thomas F. Gimble

Acting

Deputy Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. D-2001-137
(Project No. D-2000AS-0212)

June 7, 2001

Certification of the Defense Civilian Personnel Data System

Executive Summary

Introduction. The Clinger-Cohen Act mandated changes to the way DoD selects and manages information technology resources and emphasized that information technology was an enabler of business process reengineering. The Chief Information Officer, DoD, oversees all DoD information technology investments. To help ensure effective oversight of DoD information technology investments, Congress included Section 8121(b) in the FY 2000 DoD Appropriations Act. This act required the Chief Information Officer, DoD, to certify, prior to Milestone I, II, or III approval, that major automated information systems were being developed in accordance with the Clinger-Cohen Act. Section 8121(b) also required the Chief Information Officer, DoD, to inform Congress of the certifications and to provide confirmation that DoD Components took certain steps with respect to the system certification, to include business process reengineering, analysis of alternatives, economic analysis, performance measures, and an information assurance strategy. This audit was the first in a series of planned audits of information systems that were certified by DoD as being compliant with the Clinger-Cohen Act.

DoD authorized the development of the modern Defense Civilian Personnel Data System in December 1994 to support the regionalization of civilian personnel operations, which included workforce reduction. DoD planned to concurrently field the Defense Civilian Personnel Data System modernization and complete regionalization by December 1998. DoD completed regionalization by June 1999, but, as of May 2001, full-scale deployment of Defense Civilian Personnel Data System had occurred at only 5 of the 26 proposed sites. Of the remaining 21 sites, program officials expanded testing at 6 of the sites and planned to complete deployment for 15 sites by September 2001, almost two years after the completion of reengineering. On May 10, 2000, the Chief Information Officer, DoD, certified that the Defense Civilian Personnel Data System was being developed in accordance with the Clinger-Cohen Act.

Objectives. The audit objective was to determine whether DoD oversight processes and procedures provided the Chief Information Officer, DoD, sufficient basis to certify that the Defense Civilian Personnel Data System was managed in accordance with the Clinger-Cohen Act. In subsequent reports, we will evaluate the basis for certification of other systems, assess DoD progress in implementing the Clinger-Cohen Act, and review related management controls.

Results. The Chief Information Officer, DoD, did not have sufficient basis to certify, without qualification, that the Defense Civilian Personnel Data System had been developed in accordance with the Clinger-Cohen Act. Specifically, the Chief Information Officer, DoD, lacked sufficient basis for unconditional certification because previously identified Clinger-Cohen compliance issues were not fully resolved or recognized, relevant data were not adequately analyzed, and key acquisition documents either were not prepared or

were not prepared and approved in a timely manner. Additionally, milestone exit criteria were not well defined or sufficiently tracked and enforced. Further, DoD oversight did not include specific criteria or a commonly defined approach for evaluating the basis for Clinger-Cohen certification. As a result, the certification requirement was not an effective means for ensuring Defense Civilian Personnel Data System compliance with the Clinger-Cohen Act. The DoD is continuing to refine its information technology acquisition review processes and needs to consider the lessons learned from its initial experiences in section 8121(b) implementation, which includes the need for better guidance and oversight.

Summary of Recommendations. We recommend that the Chief Information Officer, DoD, clarify and enhance the methodology for determining Clinger-Cohen compliance; improve information technology oversight processes by periodically confirming the accuracy and adequacy of information reported by DoD Components; coordinate with the Civilian Personnel Management Service to implement common DoD-wide performance measures; and continue oversight of post-development Defense Civilian Personnel Data System program activities. We also recommend that the Director, Civilian Personnel Management Service, reassess system interfaces and enhance user guidance to ensure that the information assurance posture of the system is appropriate.

Management Comments. Management commented that we inappropriately describe previously identified issues as Clinger-Cohen Act compliance issues because associated decisions were made before the Act was legislated. The Acting Deputy Assistant Secretary of Defense (Deputy Chief Information Officer) concurred with the recommendations to clarify and strengthen the certification criteria and processes used by the Chief Information Officer and the DoD Components to determine whether major automated information systems are developed in accordance with the Clinger-Cohen Act. However, the Deputy Assistant Secretary nonconcurred with the draft recommendation to implement standardized functional performance measures because implementation is a responsibility of the system owner. Additionally, the Acting Assistant Secretary of Defense (Force Management Policy) and the Director, Civilian Personnel Management Service, jointly indicated nonconcurrence with both recommendations on information assurance stating that all system interfaces were appropriately secured and processes documented, and that the related recommendations should be removed.

Audit Response. We recognize that the basis for some issues predates the passage of the Clinger-Cohen Act in 1996, but the concepts mandated by the Act were not new to DoD. Similar Office of Management and Budget and DoD policy and requirements existed prior to the enactment of Clinger-Cohen and were fully applicable to Defense Civilian Personnel Data System program decisions made before and after the enactment of Clinger-Cohen. Although the Acting Deputy Assistant Secretary (Deputy Chief Information Officer) concurred with most recommendations, the comments were partially responsive. We asked for additional comments on the development of an action plan for enhancing Chief Information Officer oversight and completion dates for the recommendations. We also revised Recommendation 1.c. on implementing performance measures to more appropriately focus on the role of oversight. Based on the comments of the Director, Civilian Personnel Management Service, we revised both recommendations related to information assurance. We revised Recommendation 2.a. so that we no longer tied system deployment at additional sites to the implementation of our recommendations. We also revised Recommendation 2.b. to allow flexibility in publishing the enhanced security guidance as long as the guidance is documented and easily accessible. We request that management provide additional comments on the final report by July 9, 2001.

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Background

In the mid-1990s, Congress passed several pieces of reform legislation designed to improve the management and performance of Federal agencies. The reform legislation responded to the inability of Federal agencies to effectively manage the acquisition of information technology (IT) systems that met the needs of functional users. One major reform initiative was the Information Technology Management Reform Act of 1996, which was subsequently retitled the Clinger-Cohen Act of 1996.

Clinger-Cohen Act of 1996. The Clinger-Cohen Act of 1996 (CCA) requires Federal agencies to focus on the results achieved through IT investments while streamlining the Federal IT procurement process. Specifically, the CCA required agencies to design and implement a structure and process for acquiring and managing IT. One of the primary requirements of the CCA was the establishment of the position of the Chief Information Officer for each Federal agency.

To comply with this requirement, in June 1997, the Secretary of Defense designated the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) as the Chief Information Officer, DoD (the CIO), and conferred the authority and responsibility for implementing all aspects of the CCA. The CIO responsibilities include:

- designing and implementing a process for maximizing the value and assessing and managing the risks of DoD IT acquisitions (delegated by the Secretary of Defense);
- institutionalizing performance- and results-based IT management (delegated by the Secretary of Defense); and
- providing advice and other assistance to the Secretary of Defense and other senior DoD managers to ensure that the acquisition of IT and information resources was managed in accordance with the policies of the CCA.

The Secretary of Defense also made the CIO responsible for the management and oversight of all DoD IT systems. Specific responsibilities included overseeing the performance of IT programs and measuring program progress through system milestone reviews.

Congressional Concerns. In the House of Representatives Report 106-244, "Report of the Committee on Appropriations," July 20, 1999, the House Committee on Appropriations expressed disappointment in the effectiveness of management oversight of DoD IT system acquisition projects. Specifically, the Committee stated that IT systems tended to overrun budgets, slip schedules, evade data standardization and interoperability requirements, and shortchange user needs. In an attempt to address some of those concerns, Congress developed provisions to prohibit any DoD IT system from receiving approval in

an acquisition development milestone decision without written certification from the CIO that the system has been developed in accordance with the CCA.

Statutory Requirements. Additionally, Congress enacted section 8121(b), “Certifications as to Compliance with the Clinger-Cohen Act” of the FY 2000 DoD Appropriations Act, which states:

(1) During the fiscal year 2000, a major automated information system may not receive Milestone I approval, Milestone II approval, or Milestone III approval within the Department of Defense until the Chief Information Officer certifies, with respect to that milestone, that the system is being developed in accordance with the Clinger-Cohen Act of 1996 (40 U.S.C 1401 et seq.). The Chief Information Officer may require additional certifications, as appropriate, with respect to any such system.

(2) The Chief Information Officer shall provide the congressional defense committees timely notification of certifications under paragraph (1). Each such notification shall include, at a minimum, the funding baseline and milestone schedule for each system covered by such a certification and confirmation that the following steps have been taken with respect to the system:

- A) Business process reengineering.
- B) An analysis of alternatives.
- C) An economic analysis that includes a calculation of the return on investment.
- D) Performance measures.
- E) An information assurance strategy consistent with DoD Command, Control, Communications, Computers, Intelligence, and Reconnaissance Architecture Framework.

On October 30, 2000, Congress enacted Public Law 106-398, the FY 2001 DoD Authorization Act, section 811(c), “Milestone Approval For Major Automated Information Systems,” which reinforced the requirements of section 8121(b) and clarified that the CIO shall determine whether the IT system was being developed in accordance with the requirements of division E of the CCA.

Related DoD Policy and Requirements. The specific interest items iterated in section 8121(b) were specifically recognized and required by DoD policy and guidance prior to passage of the CCA in 1996. DoD Directive 8000.1, “Defense Information Management (IM) Program,” October 27, 1992, provides high-level DoD policy regarding information management, including supporting IT systems. The Directive levies requirements and responsibilities for business process streamlining and improvements; preparing and validating functional economic analyses, which includes analyses of alternatives and investment risk;

developing functional process performance measures and assessments; and ensuring appropriate information security. Additionally, DoD Directive 8120.1, “Life-Cycle Management (LCM) of Automated Information Systems (AISs),” January 14, 1993,¹ had stated that it was DoD policy to control IT system expenditures to ensure that derived benefits satisfy mission needs to the greatest extent possible and in the most cost-effective manner. Accordingly, Directive 8120.1 emphasized the importance of those specific section 8121(b) interest items that are critical in the “early-on” IT development stages, especially those related to improving business processes and examining alternatives and projecting related costs and benefits. DoD acquisition guidance also contained requirements related to basic principles of sound system acquisition management.

Acquisition Program Milestones. A milestone is a decision point that separates major phases of an acquisition program. Until October 2000, the major DoD acquisition phases included Concept Exploration (Phase 0), Program Definition and Risk Reduction (Phase I), Engineering and Manufacturing Development (Phase II), and Production, Fielding/Deployment, and Operational Support (Phase III). DoD acquisition policy requires a milestone decision before an acquisition program may progress to the next phase of development. The CIO, as the Milestone Decision Authority (MDA) for major automated information systems, approved milestone decisions for high-cost or special interest IT acquisition programs. In October 2000, DoD substantially revised its acquisition guidance and requirements. Those revisions included a reduced number of major milestone phases and associated decision points. DoD also revised acquisition regulations to more clearly and effectively implement various aspects of IT reform legislation, including those related to the CCA.

Key Acquisition Documents. As part of the acquisition program milestone review, key acquisition documents, such as an Acquisition Program Baseline and Test and Evaluation Master Plan, are fundamental to the effective acquisition management and oversight of IT systems. Accordingly, senior representatives from the Office of the Secretary of Defense rely on key acquisition documents to help implement the CCA. Although DoD de-emphasized some mandatory documentation requirements, DoD provided clear direction on statutory and regulatory requirements for appropriate program documentation for milestone reviews.

Defense Civilian Personnel Data System. On May 10, 2000, the Defense Civilian Personnel Data System (DCPDS) was certified as one of the first systems developed in accordance with the CCA. The primary goal of the DCPDS Program was to provide all DoD Components with a single, standardized, automated civilian personnel management system that would provide the software application tools and the requisite hardware to support regionalization of DoD civilian personnel mission requirements and operations and a reduced workforce. Initially, DoD planned to field the modern DCPDS and complete regionalization by December 1998. By June 1999, DoD

¹ DoD Directive 5000.1, “Defense Acquisition,” March 15, 1996, cancelled DoD Directive 8120.1 and incorporated the policies and requirements on life-cycle management for automated information systems.

completed regionalization of all 22 regional support centers. However, initial deployment of the DCPDS did not start until October 1999, with complete deployment scheduled for September 2001. The Civilian Personnel Management Service (CPMS) was the functional proponent for the DCPDS Program and IT system acquisition program management was performed by the Central Design Activity at the Air Force Personnel Center. Upon Milestone III approval, the Central Design Activity ceased to provide acquisition program management services, and CPMS assumed overall program acquisition and management responsibilities. Appendix B provides a detailed description of the DCPDS Program.

Objectives

The audit objective was to determine whether DoD oversight processes and procedures provided the Chief Information Officer, DoD, with a sufficient basis to certify that the Defense Civilian Personnel Data System was being managed in accordance with the Clinger-Cohen Act. This report is the first of a series. In subsequent reports, we will evaluate the basis for certification of other systems, assess DoD progress in implementing the Clinger-Cohen Act, and review related management controls. A description of the audit scope and methodology and prior coverage related to the DCPDS Program is shown in Appendix A.

Certification of the Defense Civilian Personnel Data System As Compliant with the Clinger-Cohen Act

The CIO did not have a sufficient basis to certify, without qualification, that DCPDS had been developed in accordance with the Clinger-Cohen Act. The CIO lacked sufficient basis because:

- previously identified CCA compliance issues had not been fully resolved, and relevant data were not adequately analyzed;
- key acquisition documents either were not prepared or were not prepared and appropriately approved in a timely manner, and were not regularly updated;
- milestone exit criteria were not well defined or sufficiently tracked and enforced;
- CIO management controls for overseeing the DCPDS development did not provide active oversight participation and involvement by senior DoD advisors at key decision points or adequate and ongoing direction and guidance to the DCPDS Program; and
- the CIO did not establish specific criteria for or define a common approach to evaluating the basis for CCA certification.

As a result, in the case of the DCPDS Program, the certification requirement was not an effective means of ensuring compliance with the CCA.

DCPDS Certification Process

CPMS officials had to use draft procedures to prepare the DCPDS Compliance Report because the CIO did not complete a standard section 8121(b) certification process until after he had certified the DCPDS Program as CCA compliant. The DCPDS was certified to Congress on May 10, 2000; however, the CIO did not complete the standard section 8121(b) certification process until July 13, 2000. Although the use of draft procedures during the DCPDS certification process did not materially affect the validity of the certification, official guidance establishes management's position, intent, and applicability of the policy. Both the draft and final versions of section 8121(b) certification procedures required DoD Component heads to prepare a compliance report prior to each milestone approval.

The Office of the Director, CPMS, prepared the compliance report for the DCPDS Program, which summarized the requirements of section 8121(b), provided background information on the DCPDS Program, and outlined the actions taken by CPMS on the five section 8121(b) interest items: business process reengineering, analysis of alternatives, economic analysis, performance measures, and an information assurance strategy. A review team represented by various staff offices within the Office of the Secretary of Defense then prepared the congressional certification report for the signature of the CIO. The compliance report and the certification report essentially contained the same information. On March 17, 2000, the review team briefed the Deputy CIO on the draft DCPDS certification report. The briefing included confirmation of steps taken to address each of the five specific congressional interest items. During its briefing to the Deputy CIO, the review team presented a qualified confirmation of steps taken regarding business process reengineering, analysis of alternatives, and performance measures because the General Accounting Office (GAO) previously identified problems in those areas.

Because CPMS initiated actions to address GAO concerns, the review team recommended that the CIO certify DCPDS as CCA compliant. The Deputy CIO tentatively approved certification during the briefing, thus authorizing the preparation of the official certification report and congressional notification letters for the CIO to sign for Congress. The certification report and notification letters were coordinated with and endorsed by the Office of the Under Secretary of Defense (Comptroller); the Office of the Director, Program Analysis and Evaluation; the Office of the Assistant Secretary of Defense for Legislative Affairs; the Office of the Deputy Under Secretary of Defense for Program Integration; the Office of General Counsel; the Office of the Deputy Assistant Secretary of Defense for Civilian Personnel Policy; and the Office of the Assistant Secretary of the Air Force for Acquisition.

Resolution of Previously Identified CCA Compliance Issues

In its report GAO/AIMD-99-20, "Defense IRM: Alternatives Should Be Considered in Developing the New Civilian Personnel System," January 1999, the GAO identified DCPDS development problems related to each of the five interest items listed in section 8121(b). The GAO concluded that the DCPDS development provided DoD with little assurance that its investment was optimal because of weaknesses identified in business process reengineering, analysis of alternatives and economic analyses, and performance measures. Additionally, DCPDS security risks had not been adequately addressed. GAO recommendations included a reevaluation of alternatives, with the costs and benefits of each alternative determined through economic analyses, and the standardization of performance measurements. GAO also recommended actions to adequately secure and protect DCPDS sensitive data.

In effect, the results of the GAO review should have informed DoD that DCPDS development had not been in accordance with the CCA. Because the report to

Congress did not mention the results of the GAO review, we included steps in our audit to validate GAO conclusions and to evaluate DoD actions to implement related recommendations.

DoD Investment in DCPDS. To determine whether the CIO had a firm basis for certifying that DCPDS was developed in accordance with the IT system investment principles of CCA, we evaluated the actions taken on related section 8121(b) interest items: business process reengineering, analysis of alternatives, economic analysis, and performance measures.

Business Process Reengineering. DoD efforts to reengineer personnel management processes prior to DCPDS investment met the general intent of CCA. Business process reengineering is a systematic and disciplined improvement approach that critically examines, rethinks, and redesigns mission-delivery processes to improve performance in areas that are important to customers and stakeholders. The redesign of business processes has to occur prior to system development to maximize the value of IT system investment.

Business process reengineering is normally accomplished through three basic steps. First, an “as-is” model is produced, which provides detailed descriptions of existing functional processes. Capitalizing on current IT technology and capabilities, a “to-be” functional process is then designed, which details the reengineered processes. Once the redesigned business processes are determined, an IT system can be designed and developed to best implement the reengineered business processes.

To re-engineer civilian personnel business processes, DoD initiated the modernization of the DCPDS to support regionalization of civilian personnel operations, which included workforce reduction. DoD began regionalization efforts in 1989 and completed those efforts by June 1999. To enable DoD regionalization efforts, DoD developed the modern DCPDS, with plans to complete the modernization effort by December 1998. However, DCPDS deployment to various test sites did not begin until October 1999 with an estimated completion date of September 2001, almost 2 years after regionalization was completed. Consequently, DoD’s reengineering of civilian personnel management business processes did not yield all the expected benefits at that time because the enabling IT system, DCPDS, had not met original timeframes.

DoD completed the redesign of personnel business processes before the completion of the enabling IT system development. However, a fully effective reengineered business process required timely implementation and integration of the IT system with the modified processes.

Analysis of Alternatives and Economic Analysis. CPMS officials could not demonstrate that they selected the DCPDS Program IT system through a process of rigorous analysis of alternatives and economic analysis. An analysis of alternatives and an economic analysis are directly related. Effective use of an analysis of alternatives, in conjunction with an economic analysis, provides a viable basis for evaluating potential solutions and selecting the most cost-beneficial alternative. The analysis of alternatives generally starts with a

broad base of possible solutions to meet a mission need. Once the field of possible solutions is narrowed to a few realistic alternatives, then the principles of economic analysis and its tools of cost-benefit analysis and return-on-investment are applied to identify the most promising solution.

DCPDS managers did not meet the requirements of DoD Instruction 7041.3, "Economic Analysis for Decision Making." DoD Instruction 7041.3 states that each feasible alternative for meeting an objective must be considered and its life-cycle costs and benefits evaluated. The Instruction also states that alternatives dismissed as infeasible must be discussed, but need not be formally compared, in the economic analysis. Additionally, the Instruction requires that the economic analysis provide a detailed cost/benefit analysis for all alternatives deemed feasible through the analysis of alternatives process. The emphasis on documentation is appropriate because all significant DoD investments undergo some form of management review. Oversight cannot be effective without a clear understanding of why a proposed investment is the best available alternative.

In 1995, CPMS officials decided to base the acquisition of the DCPDS Program upon commercially available software and selected an Oracle product. However, there was little evidence to demonstrate that their selection process employed a rigorous analysis of alternatives or economic analyses detailing the expected costs, benefits, and returns on investments. CPMS officials evaluated three commercial products to determine how well each product would meet DoD personnel management needs and the initial costs for each product. The selection process did not clearly demonstrate that the Oracle product represented the best DCPDS investment alternative.

In its January 1999 report, GAO recommended that DoD analyze all commercially available alternatives and the related costs and benefits of each. DCPDS Program officials agreed, but did not commit to reevaluating the Oracle selection. CPMS officials told us that Oracle was the only software that could perform DCPDS requirements and that further economic analysis made no sense, given the level of investment in DCPDS at the time of the GAO report. Additionally, DCPDS development was almost complete and further analysis would have unnecessarily delayed implementation of DCPDS. In July 1999, GAO representatives agreed with CPMS officials that it was too late in the development process to reconsider Oracle and that the CPMS should turn its focus to the future.

Because the CIO provided DCPDS with a conditional Milestone III approval on May 19, 2000, we agree that further analysis of alternatives and economic analyses would provide little benefit at such a late stage of development. However, CPMS officials should perform a well documented analysis of alternatives and an economic analysis for any significant future product improvements or upgrades.

Performance Measures. The "DoD Guide for Managing Information Technology (IT) as an Investment and Measuring Performance," February 10, 1997, defined IT performance measurement as:

The assessment of effectiveness and efficiency of IT in support of the achievement of an organization's missions, goals, and quantitative objectives through the application of outcome-based measurable, and quantifiable criteria, compared against an established baseline, to activities, operations, and processes.

Evaluation of a program's effectiveness and efficiency begins with the establishment of a performance measurement baseline. Performance measures are developed based on expected outcomes, assessed against the baseline, and continually monitored to determine whether they are being achieved. Individual measures are defined and then quantified with targets and thresholds to form the performance measurement baseline.

In its January 1999 report, GAO emphasized that common definitions for performance measures were needed to uniformly and consistently measure mission performance gains of all DoD Components. As of October 2000, CPMS officials had not obtained agreement between the Military Departments on definitions for common performance measures. Further, because the performance baselines established by the Military Departments were premised on their unique definitions, DoD did not have a common base from which to measure DCPDS performance gains. Because CPMS officials did not insist that each DoD Component establish performance measures based on common definitions, DoD was not able to meaningfully assess the impact of DCPDS on its DoD-wide civilian personnel management mission. Additionally, without standard performance measures and related baselines, DoD was not able to uniformly assess and quantify performance gains attributable to DCPDS by all Components.

The CIO description provided to Congress of steps relating to DCPDS performance measures was not complete; however, DoD could still establish and implement uniform DCPDS performance measures. Specifically, the CIO, in coordination with CPMS, should make sure that uniform DCPDS performance measures are implemented by all DoD Components. Such action would provide the CIO with a basis to comply with the specific CCA requirement to measure how well DCPDS supported the users. Uniform performance measures would also better enable the CIO to meet the CCA requirement to annually report DoD progress in achieving DCPDS goals to Congress.

Information Assurance. CPMS officials took substantial action to improve the DCPDS information assurance posture in response to prior reports and reviews; however, we identified further opportunities for CPMS to improve the information assurance posture of DCPDS assets. Information assurance, often referred to as information security, is the process used to protect and defend

information and information systems by ensuring their confidentiality, integrity, availability, and non-repudiation².

Action Taken on Prior Audits and Reviews. Office of Inspector General, DoD, Report No. 98-082, "Information Assurance of the Defense Civilian Personnel Data System," February 23, 1998, identified high DCPDS risks concerning unauthorized system access, inappropriate alteration and destruction of personnel data, and denial of service to users. Recommendations included the implementation of information assurance measures and procedures to protect civilian personnel data. In its January 1999 report, GAO identified DCPDS information assurance weaknesses regarding physical security of related hardware and personnel data and the use of non-secure data networks, including the Internet. GAO recommended an assessment of DCPDS security risks and needs, encryption to protect DCPDS sensitive personnel data, and security awareness at all DCPDS sites.

CPMS officials initiated and implemented aggressive actions to improve the information assurance of DCPDS and to satisfy related Inspector General and GAO recommendations. Those actions included the encryption of data exchanged between the regional centers and associated customer support units, the performance of DCPDS risk assessments and DCPDS security test and evaluations, the designation of information system security officers at each DCPDS site, and the formal accreditation of DCPDS as being appropriately secured.

Assessment of DCPDS Information Assurance. Overall, DoD adequately and fairly described the DCPDS information assurance posture in the congressional notification. We commend CPMS actions that greatly strengthened the information assurance of DCPDS; however, we identified additional areas of concern and opportunities for CPMS management to further strengthen DCPDS information assurance.

CPMS lacked a documented risk assessment for unencrypted data exchanged among the centralized corporate database, the Regional Service Centers, and other non-DCPDS external systems. As of November 2000, data encryption between some of these links did not exist. Accordingly, the Director, CPMS, should perform a risk assessment of the unencrypted interfaces to determine whether the transmittal of passwords, user identifications, and DCPDS data over the unsecured Internet could be better protected and should implement, if deemed appropriate, enhanced security controls.

We also identified a need for enhancements to DCPDS end user security policy and guidance. First, CPMS placed the responsibility for establishing strong passwords on the user. Secondly, DCPDS did not automatically disconnect users after a predetermined period of inactivity. Lastly, DCPDS did not consistently mark output products that contained sensitive data. Accordingly, DCPDS managers should develop procedures to guide and instruct DCPDS

² Non-repudiation refers to the positive identification of who accessed a system and what transactions were performed.

users in establishing and maintaining effective passwords, the use of keyboard locking mechanisms, and ensuring all sensitive documents are appropriately marked. To be of maximum benefit, DCPDS users must be made aware of the need for diligent security procedures and associated security guidance should be quickly and easily accessible by DCPDS users.

Key Documentation for Milestone Reviews

The House Appropriations Committee's Report on the DoD Appropriations Bill for FY 2000 provided insight on the congressional concerns that resulted in section 8121(b) certification requirements. The Committee was disappointed with DoD oversight of its information technology systems, including acquisition milestone reviews. Specifically, the report stated, "Those systems that are reviewed are often approved despite lacking key documentation." The Milestone Decision Authority did not ensure that key documentation for DCPDS was prepared and appropriately coordinated and approved for consideration during milestone decisions.

DoD Acquisition Documentation Requirements. DoD Regulation 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAISs) Acquisition Programs," March 15, 1996,³ allows the MDA to tailor the documentation requirements for each acquisition program. Specifically, the Regulation states that:

Any singular MDAP or MAIS need not follow the entire process described below. However, cognizant of this model, the Program Manager (PM) and the Milestone Decision Authority (MDA) shall structure the MDAP or MAIS to ensure a logical progression through a series of phases designed to reduce risk, ensure affordability, and provide adequate information for decision-making that will provide the needed capability to the warfighter in the shortest practical time.

Although the MDA may tailor the documentation required, the MDA tentatively approved DCPDS milestones without ensuring that documentation key to making sound milestone decisions had been prepared or had not been appropriately coordinated and approved. Further, actual milestone decisions were not clearly delineated or adequately documented.

Milestones I and II Documentation. On May 20, 1996, the MDA provided a provisional Milestone I approval and implied a Milestone II approval. The MDA approved Milestone I pending the receipt, within 60 days, of an approved Operational Requirements Document, Acquisition Program Baseline, and Test and Evaluation Master Plan. The documents required by the MDA, which provide critical insight to key aspects of program strategy and direction, were not submitted for several months. One reason for delay was that DCPDS

³ Reissued as Interim Regulation, DoD 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information Systems (MAIS) Acquisition Programs," January 1, 2001

managers did not fully recognize the time needed to extensively coordinate key documents and to obtain the requisite approvals from other than functional officials. For example, ultimate approval of the DCPDS Master Test and Evaluation Plan had to be obtained from DoD developmental and operational testing organizations. The MDA indicated a Milestone II approval by authorizing the DCPDS Program to continue the design analysis and development of application software, activities normally undertaken in Phase II of an acquisition. However, the required documentation was not provided during the specified timeframe. Therefore, it is unclear whether the original milestone decision was nullified. No final Milestone I or II decision by the MDA was documented.

Milestone III Documentation. On May 19, 2000, the MDA provided a conditional Milestone III approval for the DCPDS Program although several key documents had not been developed. For example, after 4 years, CPMS still had not prepared a formal Analysis of Alternatives or standard DoD performance measures for DCPDS, even though GAO had previously identified weaknesses in those areas. Additionally, the MDA did not ensure that DCPDS Program officials developed a DCPDS implementation risk analysis and mediation plan even though DCPDS implementation was contracted to an outside source. Further, although DCPDS did not meet all Operational Requirements Document requirements and key performance parameters during the Qualification Operational Test and Evaluation, DCPDS managers did not document an approach for resolving the testing issues for MDA consideration during the milestone review.

Milestone Exit Criteria

DoD Regulation 5000.2-R states that the Program Manager shall propose and the MDA shall approve exit criteria appropriate to the next acquisition phase at each milestone review. Exit criteria should demonstrate a level of performance outcome, accomplishment of a process at a particular level of efficiency, accomplishment of an event, or some other indication that the program is progressing satisfactorily. The Regulation also requires the acquisition decision memorandum (ADM) to document exit criteria requirements.

The ADM issued by the MDA for the May 1996 and May 2000 milestone decision approvals did not contain sufficient exit criteria to guide the DCPDS Program through the next acquisition phase. Rather than provide requirements for the next acquisition phase, the ADM required specific steps for program officials to perform that should have been completed during the previous acquisition phase. Additionally, the MDA did not ensure sufficient followup to enforce the provisions set forth in the ADM.

Milestone I Exit Criteria. The May 20, 1996, ADM provided Milestone I approval pending the submission by July 1996 of an approved Operational Requirements Document, an Acquisition Program Baseline, and a Test and Evaluation Master Plan. DCPDS Program officials should have submitted fully coordinated and approved key documents for consideration before the

Milestone I decision, but did not submit them to the CIO in final form until 4, 21, and 31 months, respectively, after the Milestone I decision. The CIO also did not ensure that the documents were prepared, approved, and submitted in a timely manner as required by the ADM. Appendix C provides a timeline of DCPDS program events including approval dates for milestone decisions and program documentation.

The ADM also stated specific requirements that DCPDS Program officials needed to meet before exiting Phase II, such as the development of a risk management plan. DCPDS Program officials developed and approved a risk-management plan in February 1997, but did not update it until DCPDS Program officials prepared a draft pre-Milestone III Technical Risk Management Plan in January 2000. However, the Director, CPMS, did not approve the draft plan.

Milestone III Exit Criteria. The May 19, 2000, ADM authorized the DCPDS Program to proceed to the deployment phase subject to completing several actions before fielding. The ADM required the Director, CPMS, to provide within 30 days, a Memorandum of Understanding of the mission-essential functions necessary to field the system, an approved deployment schedule, and an acquisition program structure. The ADM also required the Director, CPMS, to fully develop the mission-essential functions and the Air Force Operational Test and Evaluation Center to perform the appropriate operational testing before deployment. The Director, CPMS, provided the three documents to the CIO within 30 days, but the CIO did not question the adequacy of the CPMS documentation and did not ensure that the deficiencies identified during testing were addressed.

Mission-Essential Functions. The Qualification Operational Test and Evaluation Test Report prepared by the Air Force Operational Test and Evaluation Center concluded that DCPDS was effective and suitable and recommended a Milestone III approval. However, DCPDS did not meet all of the Key Performance Parameter requirements of the Operational Requirements Document. The Test Report recommended that the capabilities dealing with mass actions be operational before the DCPDS was fielded. However, the May 19, 2000, ADM did not specifically request that CPMS officials address the Test Report recommendations. Rather than determining whether those requirements should be waived, the Memorandum of Understanding provided by the Director, CPMS, and the functional Components focused on pre-planned upgrades. As a result, the Air Force Operational Test and Evaluation Center Test Report recommendation on mass actions was not specifically addressed and it remained unclear whether the requirement would be resolved before the DCPDS was fielded.

Deployment Schedule. The CPMS provided a deployment schedule on June 19, 2000, which showed that fielding was to begin on August 4, 2000. The schedule was unrealistic because additional testing had not been scheduled. The CPMS began limited deployment to expand the modern DCPDS test base on October 13, 2000. As of May 2001, CPMS had deployed five full-scale core systems and expanded field-testing at six test sites. CPMS plans to complete DCPDS deployment by September 2001.

CPMS Acquisition Program Structure. In September 1999, the CIO authorized the transition of DCPDS implementation, sustainment, operations and maintenance from the program management organization to a commercial vendor. In May 2000, the transition occurred and the DCPDS program office was dissolved. With the transition and subsequent loss of acquisition program oversight, CPMS officials were required to develop an acquisition program strategy for assuming overall DCPDS program management responsibilities. In October 1999, CPMS officials established a separate Vendor Management Office to provide management oversight and support to DCPDS procurement, contract, and certification activities.

Because the assumption of acquisition program management responsibilities by the functional proponent was highly unusual, we reviewed the qualifications of the Vendor Management Office staff to determine whether staff qualifications were appropriate for the task. Although staff qualifications appeared adequate, the CIO should continue to periodically oversee the CPMS throughout the fielding and operational support of DCPDS.

Effectiveness of CIO Oversight

We examined the structure and procedures for CIO acquisition oversight of the DCPDS Program. We also evaluated the data relied upon by the CIO in making oversight decisions. The DCPDS oversight controls were not fully effective because the senior advisory team to the CIO was not fully involved. We also identified control weaknesses associated with the ongoing oversight process of the DCPDS Program.

Information Technology Overarching Integrated Product Team. The Information Technology Overarching Integrated Product Team (Overarching IPT) was minimally involved in the oversight of the DCPDS Program. The primary role of the Overarching IPT was to provide advice to the CIO during milestone reviews. The Overarching IPT, known as the Major Automated Information Systems Review Council until July 1998, was composed of senior managers representing the primary staff assistants with an interest in the subject system. For DCPDS, the Overarching IPT included senior managers from the offices of the Under Secretary of Defense (Acquisition, Technology, and Logistics); the Under Secretary of Defense (Comptroller); the Director, Operational Test and Evaluation; the Director, Program Analysis and Evaluation; and user representatives. Although the Overarching IPT reviewed and concurred with draft acquisition decision memoranda before formal DCPDS milestone decisions, it did not meet during milestone reviews to discuss the progress and status of the DCPDS Program and did not help identify potential programmatic problems. Instead, the Overarching IPT relied on a lower-level, Acquisition Oversight IPT to provide critical DCPDS oversight review and direction.

Acquisition Oversight IPT. The Acquisition Oversight IPT continuously monitored DCPDS, but did not provide effective oversight to ensure that DCPDS complied with DoD acquisition requirements or milestone decision authority direction. From July 1997 through June 2000, the Acquisition

Oversight IPT met 18 times and monitored aspects of DCPDS such as program and life-cycle costs, information assurance, testing, Year 2000 planning, training, and outsourcing. The Acquisition Oversight IPT also provided program progress updates, established and tracked action items, and tracked audits and reviews. However, the Acquisition Oversight IPT did not effectively question the adequacy of program documentation or the actions of program officials. For example, the Acquisition Oversight IPT did not ensure that DCPDS Program officials prepared key documentation in accordance with DoD acquisition policies prior to milestone decision reviews and did not ensure that the provisions contained in related acquisition decision memoranda were met in a timely and efficient manner. Additionally, while the Acquisition Oversight IPT tracked the status of DCPDS audits and reviews, it did not ensure that DCPDS Program officials took corrective actions to address deficiencies identified by the Inspector General, DoD, and GAO.

CIO Verification of Information. Overall, the CIO could improve oversight responsibilities through the periodic verification of information provided. CIO staff members informed us that oversight verification was seldom performed. Therefore, we concluded that prudent verification efforts could substantially improve the effectiveness of oversight responsibilities. For example, during the DCPDS certification briefing to the Deputy CIO, the review team provided qualified confirmations relating to steps taken on the congressional interest items. Nevertheless, the Deputy CIO provided Congress with an unqualified certification.

DoD Criteria and Approach for Determining Compliance

The CIO certified that the DCPDS Program was being developed in accordance with the CCA, but the basis for the certification was unclear because the CIO had not established common criteria or a uniform approach to determine the adequacy of compliance. Further, the CIO did not describe the basis used for certification in the congressional notification.

Bases Cited for DCPDS Certification. Because neither the compliance report nor the certification report specified a basis for certification, we asked staff members in the Office of the Secretary of Defense, who primarily developed the section 8121(b) certification process, to clarify the basis for system certification. Their answers indicated confusion as to the basis for certification. One CIO staff member stated that the basis for certification was premised on the CIO oversight process for major automated information systems; however, a member of Program Analysis and Evaluation staff stated that certification was based on an assessment of the steps taken relating to the five items of interest specified in section 8121(b). We evaluated both processes and determined that they both included notable weaknesses and did not provide a suitable basis for certifying to Congress that the DCPDS Program was managed and developed in accordance with the CCA.

DoD Guidance for Certification. On July 13, 2000, the CIO issued a memorandum, "Department of Defense (DoD) Information Technology (IT)

Systems Certification Requirements,” on the certification process for major automated information systems. Overall, the procedures were similar to the DCPDS draft procedures. Specifically, the guidance requires that Component heads prepare a compliance report, confirm that steps were taken to address the congressional interest items, and provide descriptions of the steps taken. Further, the July 13, 2000, memorandum requires the Component head to concur that the subject system was developed in accordance with the CCA. The memorandum also included a sample template for compliance reporting. The template indicated that compliance could be determined by assessing the steps taken for the five specific interest items; however, it did not provide criteria for assessing CCA compliance and did not state any specific approach for determining the adequacy of compliance. Although section 8121(b) was applicable only during FY 2000, Congress included section 8121(b) certification requirements in section 811(c) of the Defense Authorizations Act of FY 2001. Accordingly, the CIO needs to develop specific criteria or specify a common approach for all DoD Components to achieve uniform and consistent compliance assessments.

Conclusion

The CIO certified in May 2000 that DCPDS was being developed in accordance with the CCA. However, the January 1999 GAO report clearly indicated that DCPDS development was not compliant with the CCA. The CIO did not ensure that CPMS officials corrected the deficiencies reported by GAO and did not verify that the five specific interest items cited in section 8121(b) were completed in accordance with DoD acquisition policy. For example, a formal analysis of alternatives was never prepared and an in-depth, cost/benefit analysis was not prepared for any other alternative except the product selected for the DCPDS Program. Certain aspects of the CCA, such as an analysis of alternatives and an economic analysis, should have been thoroughly performed early in the DCPDS development process. Milestone III was too late in the DCPDS development process to obtain any of the benefits that an analysis of alternatives or an economic analysis could have provided. Although DCPDS was past the stage where reengineering business processes and an analysis of alternatives could be useful, the CIO needs to ensure that acquisition programs that are in the early stages of the acquisition process adhere to the principles and intent of the CCA.

We realize that implementation of both the CCA and section 8121(b) (now section 811(c)) is still being refined. The lessons learned from DCPDS and other early system certifications will be useful in improving the effectiveness of this process.

Management Comments on the Finding and Audit Response

Management Comments. The Acting Assistant Secretary of Defense (Force Management Policy) and the Director, Defense Civilian Personnel Management Service, jointly provided comments that strongly opposed our description of

issues previously identified by GAO as CCA compliance issues because the earlier program decisions, upon which the issues were based, were made prior to the enactment of the CCA. Additionally, the GAO report did not assess DoD compliance with CCA; rather, it evaluated whether DoD had applied the principles of CCA. As to previously identified CCA compliance issues not being fully resolved, the Acting Deputy Assistant Secretary of Defense (Deputy CIO) also indicated that the report did not appropriately recognize that the CCA was not in existence when relevant decisions were made.

Audit Response. The Assistant Secretary of Defense (Force Management Policy) made very similar comments to a draft of the GAO report published in January 1999. In its final report, GAO rebutted that, although initial DCPDS decisions predated the CCA, the CCA had been in effect since 1996 and should have been applied to all decisions made after its enactment. The GAO also pointed out that OMB Circulars A-11 and A-130, which contain basic principles of sound system acquisition management, existed when initial DCPDS decisions were being made. Additionally, GAO cited several other acts that were in effect at the time of initial DCPDS decisions, which contained requirements similar to those outlined in the CCA. Those acts included the Government Performance and Results Act of 1993, the Federal Acquisition and Streamlining Act of 1994, and the Paperwork Reduction Act of 1995.

The basic concepts that were mandated by the CCA for the management of information systems were not new to DoD. As previously discussed on pages 2 and 3, similar DoD policy and requirements existed prior to the enactment of the CCA and were equally applicable to all program decisions made before and after the enactment of CCA in 1996. For example, DoD Directive 8000.1, "Defense Information Management (IM) Program," October 27, 1992, established requirements and responsibilities related to each of the section 8121(b) interest items: business process reengineering, analysis of alternatives, economic analysis, performance measures, and information assurance.

The Acting Assistant Secretary of Defense (Force Management Policy) jointly with the Director, Civilian Personnel Management Service, and the Acting Deputy Assistant Secretary of Defense (Deputy CIO) disagreed with many other aspects of the draft report finding and discussion and provided extensive comments. A summary of additional management comments and the audit response is in Appendix D. The full text of management comments is in the Management Comments section of this report.

Recommendations, Management Comments, and Audit Response

Based on management comments, we revised Recommendations 1.c., 2.a., and 2.b.

1. We recommend that the Chief Information Officer, DoD, Assistant Secretary of Defense (Command, Control, Communications, and Intelligence):

a. Clarify and enhance the criteria and approach to be used by DoD Components for determining whether major automated information systems are developed in accordance with the Clinger-Cohen Act of 1996.

b. Strengthen Chief Information Officer oversight processes, including the process for certifying that major automated information systems are developed in accordance with the Clinger-Cohen Act of 1996, by periodically confirming the accuracy and adequacy of information reported by DoD Components.

c. In coordination with the Director, Civilian Personnel Management Service, ensure the implementation of standard DoD performance measures for the Defense Civilian Personnel Data System.

d. Provide oversight of the Defense Civilian Personnel Data System program acquisition and management responsibilities performed by the Civilian Personnel Management Service during Phase III and enforce the requirements of the acquisition decision memorandum.

Management Comments. The Acting Deputy Assistant Secretary (Deputy CIO) concurred with Recommendations 1.a., 1.b., and 1.d. Regarding Recommendation 1.a., the Deputy CIO agreed that better CCA compliance guidelines and standards were needed and planned to partner with DoD Components and Office of the Secretary of Defense oversight organizations to develop the guidelines and standards. In response to Recommendation 1.b., the Deputy CIO cited recent changes to DoD acquisition policy that require DoD officials to provide CCA certification or confirmation in a number of areas. The Deputy CIO also restated the intent to develop certification guidelines and standards. As to Recommendation 1.d., the Deputy CIO stated that DCPDS acquisition and management will continue to be overseen throughout Phase III to ensure compliance with the acquisition decision memorandum.

The Deputy CIO nonconcurred with Recommendation 1.c. in the draft report, stating that implementation of performance measures was more appropriately a responsibility of the Under Secretary of Defense (Personnel and Readiness).

Although not required to comment, the Acting Assistant Secretary of Defense (Force Management Policy) and the Director, Civilian Personnel Management Service, jointly provided comments on the recommendations. For the complete text of their comments, see the Management Comments section of this report.

Audit Response. The comments of the Deputy CIO were partially responsive on Recommendations 1.a., 1.b., and 1.d. For Recommendation 1.a., The Deputy CIO stated that CCA compliance guidelines and standards would be developed, but did not include an anticipated completion date. Accordingly, we request additional comments on the anticipated completion date of planned actions. Regarding Recommendation 1.b., management comments were not responsive to the intent of the recommendation. To avoid providing Congress and other organizations with potentially misleading information regarding Clinger-Cohen compliance of DoD information systems, the CIO should take steps to ensure that the information provided by DoD Components is accurate and objective. Accordingly, we request additional comments explaining how the DoD CIO will periodically confirm the accuracy and adequacy of information reported. We also request the completion date of actions planned. For Recommendation 1.d., the Deputy CIO did not describe how the Office of the DoD CIO will continue to oversee the DCPDS program acquisition and management responsibilities performed by the CPMS during Phase III. We request additional comments that describe the plan of action for continued oversight during Phase III and provide the anticipated completion date for enforcement of the ADM requirements.

In response to management comments on the draft recommendations, we revised Recommendation 1.c. to more appropriately place implementing responsibilities for performance measurements on the Director, CPMS, and coordination and oversight responsibilities on the CIO. Accordingly, we request that the CIO provide additional comments on the revised recommendation that include an action plan and an anticipated completion date for the implementation of standardized performance measures.

2. We recommend that the Director, Civilian Personnel Management Service:

a. Appropriately secure all interfaces between the Defense Civilian Personnel Data System and other automated systems.

b. Develop, and make readily and easily available to Defense Civilian Personnel Data System users, guidance to adequately define password characteristics and procedures to avoid unauthorized use of terminals and to mark sensitive data appropriately.

Management Comments. The Acting Assistant Secretary of Defense (Force Management Policy) and the Director, Civilian Personnel Management Service, indicated nonconcurrence with both recommendations and stated that the DCPDS interfaces were appropriately secure and would be monitored throughout deployment. Management also stated that because the Designated Approving Authority had already accepted the system risks and mitigating circumstances for DCPDS, a delay in deployment was unwarranted and

unnecessary. Additionally, CPMS had coordinated with the Defense Finance and Accounting Service on the single interface (two-way data feed) between DCPDS and the payroll system. The Defense Finance and Accounting Service had no plans to encrypt this data.

Audit Response. We met with CPMS officials on February 1, 2001, to discuss our draft recommendations. We initiated the meeting to clarify our position and concerns. Regarding Recommendation 1.a., we identified five DCPDS interfaces, (which we define as any exchange of data between systems, regardless of whether the exchange is one- or two-way), that had not been considered during formal documented DCPDS risk analyses. We provided CPMS officials with a list of the specific unprotected interfaces and provided suggestions that would minimize the associated risks of sending unsecured data, passwords, and user identifications over the Internet. Potential consequences included unauthorized access to sensitive data, data alteration, access to system login accounts, and the introduction of viruses or Trojan horses to the system.

Also at that meeting, CPMS officials expressed reluctance to include detailed guidance on passwords in the DCPDS Users Manual. They felt that because the Users Manual was web-based, detailed password composition guidance was not appropriate on such an open forum and would pose too much of a security risk. We acknowledged those security concerns, but reiterated that awareness and training on appropriate security procedures are the first line of defense against unauthorized access to the DCPDS information and network of systems. Based on management concerns, we agreed to no longer require that the enhanced guidance be published in the Users Manual. We also agreed to revise Recommendation 2.b. to allow for alternate implementation methods, as long as CPMS officials documented the needed guidance and requirements and make them readily and easily available to DCPDS users. We also reiterated that periodic security training for DCPDS users will assist in maintaining the security of the system. Accordingly, we revised the discussion and recommendation on information assurance in this final report.

Because the DCPDS Designated Approving Authority recognized and accepted the risks identified, we revised Recommendation 2 to remove the requirement to tie further system deployment to implementation of the recommended actions. We request that the Assistant Secretary reconsider our recommendations and provide additional comments.

Appendix A. Audit Process

Scope and Methodology

We evaluated the basis for the certification made to Congress in response to section 8121(b) and the effectiveness of oversight provided by the Overarching IPT, the Acquisition Oversight IPT, and the milestone reviews. Specifically, we reviewed the certification process including the compliance report prepared by CPMS, briefing charts used to brief the Deputy CIO on the DCPDS certification process, and the certification report submitted to Congress by the CIO. We discussed various aspects of the DCPDS certification process, procedures, and information provided to Congress with staff of the Director, CPMS, staff of the Director, Program Analysis and Evaluation, and staff of the CIO. We also reviewed the minutes from 18 Acquisition Oversight IPT meetings held from July 1997 to March 2000 and inquired about the oversight provided by the OSD Overarching IPT. We determined whether program officials prepared key documentation prior to the milestone reviews on May 1996 and May 2000, and reviewed the ADMs issued for those two milestone reviews. We also determined whether the exit criteria provided in the May 1996 and May 2000 ADMs were well-defined and enforced by the MDA and his staff. Finally, we reviewed the actions taken in response to prior audits and reviews of the DCPDS Program.

DoD-Wide Corporate Level Government Performance and Results Act Coverage. In response to the Government Performance Results Act, the Secretary of Defense annually establishes DoD-wide corporate level goals, subordinate performance goal, and performance measures. This report pertains to achievement of the following goals and subordinate performance goal.

- **FY 2001 DoD Corporate Level Goal 2:** Prepare now for an uncertain future by pursuing a focused modernization effort that maintains U.S. qualitative superiority in key warfighting capabilities. Transform the force by exploiting the Revolution in Military Affairs, and reengineer the Department to achieve a 21st century infrastructure. **(01-DoD-2)**
- **FY 2001 DoD Subordinate Performance Goal 2.5:** Improve DoD financial and information management. **(01-DoD-2.5)**

DoD Functional Area Reform Goals. Most major DoD functional areas have also established performance improvement reform objectives and goals. This report pertains to achievement of the following functional area objectives and goals:

- **Information Technology Management Functional Area.**
Objective: Become a mission partner. **Goal:** Serve mission information users as customers. **(ITM-1.2)**

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- **Information Technology Management Functional Area.**
Objective: Provide services that satisfy customer information needs.
Goal: Modernize and integrate Defense information infrastructure. (ITM-2.2)
 - **Information Technology Management Functional Area.**
Objective: Provide services that satisfy customer information needs.
Goal: Upgrade technology base. (ITM-2.3)
 - **Information Technology Management Functional Area.**
Objective: Reform information technology management processes to increase efficiency and mission contribution. **Goal:** Institutionalize provisions of the Information Technology Management Reform Act of 1996, (renamed as the Clinger-Cohen Act of 1996). (ITM 3.1)

General Accounting Office High-Risk Area. The General Accounting Office has identified several high-risk areas in DoD. This report provides coverage of the Information Management and Technology high-risk area.

Use of Computer-Processed Data. We did not use computer-processed data to perform this audit.

Use of Technical Assistance. We received technical assistance from a computer engineer in the Technical Assessment Division, Audit Followup and Technical Support Directorate. The computer engineer reviewed DCPDS documentation on information security and testing. Specifically, the computer engineer reviewed the Test and Evaluation Master Plan, the Qualification Operational Test and Evaluation Final Report, the Security Test and Evaluation Report, and the System Security Authorization Agreement.

Audit Type, Dates, and Standards. We performed this economy and efficiency audit from May through December 2000, in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. We comply with Government Auditing Standards except for the requirement for an external quality control review. Measures have been taken to obtain an external quality control review.

Contacts During the Audit. We visited or contacted individuals and organizations within DoD. Further details are available upon request.

Prior Coverage

General Accounting Office

GAO/AIMD-99-20 (OSD Case No. 1719) "Defense IRM: Alternatives Should Be Considered in Developing the New Civilian Personnel System," January 1999.

Inspector General, DoD

Inspector General, DoD, Report No. 98-127 “Information Assurance of the Defense Civilian Personnel Data System - Navy,” April 29, 1998.

Inspector General, DoD, Report No. 98-082, “Information Assurance of the Defense Civilian Personnel Data Service,” February 23, 1998.

Inspector General, DoD, Report No. 98-041 “Acquisition Management of the Defense Civilian Personnel Data System,” December 16, 1997.

Appendix B. Defense Civilian Personnel Data System

Based on a 1994 study, DoD decided to replace multiple, mainframe-based personnel management support systems with a single, standard DoD system to better support personnel operations approximately 800,000 defense civilian personnel. Improving the efficiency of DoD civilian personnel processes and increasing the overall cost-effectiveness of personnel operations were the primary objectives for developing a modern DoD civilian personnel system. The Director, CPMS, tasked to achieve those objectives, developed a functional program with two primary and complementary thrusts. Personnel operations costs would be reduced through regional operations centers, and DCPDS would be developed to provide enhanced, DoD-wide automated support for civilian personnel management offices.

Under regionalization, civilian personnel operations were consolidated into 22 Regional Service Centers and more than 300 Customer Support Units. The Regional Service Centers performed several personnel management processes on a centralized, more economical basis, while Customer Support Units provided routine personnel management services on a face-to-face basis at DoD installations. The DCPDS would provide an automated improvement to personnel management processes and convert many paper-based civilian personnel transactions to electronic transactions. When fully deployed, DCPDS would provide the software application tools and the requisite hardware to support civilian personnel mission requirements for all DoD Components.

The DCPDS would also provide different levels of support capability for regional and local civilian personnel management offices. Because the Regional Service Centers perform a greater variety of personnel management functions, they would receive the full suite of DCPDS software and a commensurate level of hardware. The Customer Support Units would receive a version of the DCPDS commensurate with the scope of their operations. The basic design of the system was a client-server architecture. Data entered into the system at the Customer Support Units would update records located at the Regional Service Centers. The database of records for each DoD civilian employee would reside at their respective Regional Service Center. CPMS also developed a centralized, DoD-wide Corporate Management Information System for DoD-wide reports and ad-hoc inquiry purposes. DCPDS modernization will cut personnel requirements, reduce processing time, eliminate redundant data entry, and eliminate the use of multiple databases.

The Director, CPMS, expected the DCPDS to enhance productivity by requiring fewer field employees and providing personnel specialists with the ability to service greater numbers of customers. At the end of FY 1994, one personnel specialist serviced 66 employees; in 2001, one personnel specialist would be

expected to service 88 employees. Expected nonquantifiable benefits included providing improved data to the DoD payroll system and a more responsive, open-systems environment.

Status and Estimated Costs of the DCPDS Program. The DCPDS Program, which was initiated on December 5, 1994, received Milestone 0 approval on May 22, 1995. A conditional Milestone I approval occurred on May 20, 1996, and a conditional Milestone III approval was granted on May 19, 2000. DCPDS was initially deployed to a few test sites in 1999. The DCPDS Program's estimated life-cycle costs from FY1995 through FY2010 total about \$1.3 billion. By May 2001, CPMS had deployed DCPDS core systems to five sites and expanded testing at six test sights. CPMS plans to deploy DCPDS to the remaining 15 systems by September 2001.

Appendix C. Timeline of Major DCPDS Program Documentation

March 15, 1995	Mission Needs Statement
May 22, 1995	Milestone 0 Approval
June 1995	Original Acquisition Program Baseline
October 1995	Original Operational Requirements Document
October 1995	Original Test and Evaluation Master Plan
January 17, 1996	1996 Economic Analysis
May 20, 1996	Conditional Milestone I Approval
October 3, 1996	Initial Operational Requirements Document Approval
September 29, 1997	1997 Economic Analysis
February 25, 1998	Initial Acquisition Program Baseline Approval
September 20, 1998	1998 Economic Analysis
October 15, 1998	Acquisition Program Baseline, Revision 1
January 9, 1999	Initial Test and Evaluation Master Plan Approval
October 11, 1999	Acquisition Program Baseline, Revision 2
November 23, 1999	Revised Operational Requirements Document
January 2000	1999 Economic Analysis
May 10, 2000	Section 8121(b) Certification
May 19, 2000	Conditional Milestone III Approval

Appendix D. Summary of Management Comments on the Finding and Audit Response

Acting Assistant Secretary of Defense (Force Management Policy)

Comments. The Assistant Secretary disagreed with several parts of the finding and supporting discussion, and stated that the draft report seemed to concentrate on the DCPDS and to evaluate the actions of its managers rather than address Clinger-Cohen certification. The Assistant Secretary also disagreed with our discussions related to business process reengineering, analysis of alternatives and economic analysis, and performance measures.

Regarding business process reengineering, the Assistant Secretary nonconcurred that CPMS officials did not critically examine and redesign their mission delivery processes, as a whole, before deciding to invest in DCPDS. Citing a deliberate decision to incrementally implement new processes to avoid disruption of ongoing civilian personnel support operations and binding Federal rules and regulations, the Assistant Secretary stated that although sudden and dramatic change may not have been achieved, DCPDS had, nonetheless, dramatically changed the fundamental way in which DoD delivers civilian personnel services.

Concerning the adequacy of analysis of alternatives and economic analysis, the Assistant Secretary disagreed that DoD had no conclusive evidence that its investment in DCPDS was optimal. Cost was only one factor considered in evaluating and selecting program approaches. Additionally, the Assistant Secretary stated that we did not acknowledge that GAO representatives indicated, in July 1999, that it was too late in the program to determine whether the selection of the Oracle product was optimal. Further, a projected return on investment of 72.6 percent indicated that investment in DCPDS was worthwhile. As to performance measures, the Assistant Secretary believed our assessment to be premature and did not reflect DoD ongoing efforts. Citing those ongoing efforts to establish standardized performance measures with standard definitions, the Assistant Secretary recommended that we revise our discussion on performance measures.

On the discussion of key documentation for milestone reviews, the Assistant Secretary disagreed that key acquisition documents were not prepared or were not prepared and approved in a timely manner, and were not regularly updated. Acknowledging that the coordination of some documents, especially the acquisition program baseline, operational requirements document, and test and evaluation master test plan, took an extensive amount of time, copies of all required program documentation were provided to oversight officials prior to each milestone review. Further, the official publication and signature dates were not indicative that DCPDS officials worked in isolation from oversight bodies. The Assistant Secretary stated that documents rarely changed between versions and oversight officials were fully aware of the process required for coordination and were satisfied with the coordination progress made.

Concerning our discussion of whether the conditional Milestone I approval was nullified because the conditions of the ADM were not met, the Assistant Secretary stated that approved documents were submitted as required and the Milestone I decision was not nullified.

The Assistant Secretary also disagreed that that CIO management controls for overseeing the DCPDS development did not provide active oversight participation and involvement by senior DoD advisors at key decision points or adequate and ongoing direction and guidance to the DCPDS Program. Their representatives on the Acquisition Oversight IPT kept members of the Overarching IPT aware of DCPDS acquisition status and potential problems. Further, the Deputy Assistant Secretary of Defense (Civilian Personnel Policy) and the Director, CPMS, met with Overarching IPT members several times to discuss key program decisions.

Additionally, the Assistant Secretary recommended that the costs of regionalization and systems modernization be differentiated in our discussion of estimated costs of the DCPDS Program in Appendix B. Further, changes should be made to Appendix C, Timelines of Major DCPDS Program Documentation, to more clearly show when selected key documents were first developed and approved by CPMS.

Audit Response. The audit and the report's focus was on the DoD CIO's unqualified certification and the effectiveness of DoD CIO oversight of the DCPDS Program rather than on DCPDS management actions. We determined whether the DoD CIO had sufficient basis to certify that selected systems were developed in accordance with the CCA. To evaluate the oversight process of major automated information systems for compliance with the DoD implementation of CCA, we reviewed the process, procedures, and supporting program documentation of a system that was certified as being developed in accordance with the CCA.

We amended our discussion of previously identified issues to more clearly show that many issues were decided before the CCA was legislated. We also clarified that, as stated in the January 1999 GAO report, the principles set forth in the CCA were not new, but merely reiterated and reinforced existing Office of Management and Budget and DoD information system development and management policies. Based on management comments and reconsideration of other factors, we revised the discussion of business process reengineering to reflect that related efforts met the intent of the CCA. We also amended our discussions of analysis of alternatives and economic analysis, and performance measures. However, we did not change our related conclusions. For analysis of alternatives, although minimal documentation was available, it simply did not provide conclusive economic evidence that the commercial software obtained represented the best investment alternative. Regarding performance measures and ongoing efforts to institutionalize standard measurements, the CPMS had not implemented DoD-wide standardized functional performance measures.

Until that occurs, DoD continues to incur a risk of having to compare disparate information in assessing DCPDS performance gains by the functional community.

Regarding the Assistant Secretary's comments on key acquisition documentation, we revised the report to clarify the need for coordination and obtaining approvals from DoD organizations other than CPMS for various key acquisition documents. However, the management comments did not alter our conclusion that, for DCPDS, the CIO did not ensure that key documentation was appropriately prepared and approved for consideration during milestone reviews. Additionally, we take exception to the Assistant Secretary's implying that delays in submitting appropriately approved documents were tacitly approved. Documented direction from the DoD CIO does not support that contention. The Milestone I approval occurred in May 1996, and the associated ADM specified that an approved acquisition program baseline be provided within 60 days. In July 1997, and again in October 1997, the chair of the Major Automated Information Systems Review Council formally emphasized to CPMS managers the need for an approved acquisition program baseline document. Further, we noted that the Assistant Secretary did not comment on other key acquisition documentation discussed in the report, such as an implementation risk analysis and mediation plan or an approach for resolving DCPDS operational test and evaluation issues, which the CIO should be expected to require for consideration during the Milestone III review. In regard to whether the DCPDS Milestone I conditional approval was nullified, because the required documentation was not fully and appropriately approved within the required timeframe and because no final Milestone I decision was documented, we conclude that the matter is uncertain.

As to the adequacy of oversight IPTs, the draft report recognized their involvement in milestone decisions and the ongoing monitoring and tracking of DCPDS activities and events. However, we continue to question whether the Overarching IPTs can provide effective advice to the CIO during milestone decisions if they never actually meet to review program progress and ensure that the program appropriately "fits" into higher level DoD initiatives and considerations. In addition, we continue to question the effectiveness of the Acquisition Oversight IPT in making sure that DoD acquisition policies and direction are effectively implemented by DCPDS and other major DoD information technology programs.

In this final report, we amended Appendixes B and C to address the suggestions of the Assistant Secretary.

Acting Deputy Assistant Secretary of Defense (Deputy CIO) Comments.

The Deputy CIO disagreed with each factor we cited in the Finding (page 5) as contributing to an insufficient basis for the unconditional certification of DCPDS. The Deputy CIO stated that although draft procedures were used to develop, coordinate, and review the DCPDS certification, the certification was not adversely impacted by the use of draft procedures. As to previously identified CCA compliance issues not being fully resolved, the Deputy CIO indicated that the report did not appropriately recognize that the CCA did not exist when relevant decisions were made. Concerning the adequacy of data

analysis for certification, the Deputy CIO cited the involvement of the CCA Working Integrated Product Team during the certification review and asserted that the data submitted for each interest item were analyzed and found to adequately support CCA certification. Regarding the appropriate preparation, approval, and updating of key acquisition documents, the Deputy CIO stated that DoD senior officials in support of DCPDS approved all key acquisition documentation in accordance with acquisition directives and regulations. Citing the need for extensive coordination of some documents, the Deputy CIO acknowledged delays but stated that acquisition oversight officials were always aware of the status of key acquisition documents.

The Deputy CIO disagreed that milestone exit criteria were not well-defined or sufficiently tracked and enforced, stating that milestone exit criteria were prepared in accordance with DoD acquisition guidance and that DoD CIO acquisition oversight staff and the Acquisition Oversight IPT monitored and actively tracked MDA decisions. The Deputy CIO disagreed that management controls for overseeing the DCPDS development were ineffective in providing active participation and involvement by senior DoD officials or in providing adequate and ongoing direction and guidance to the DCPDS Program. Senior level involvement was achieved via feedback received from their representatives on the Acquisition Oversight IPT. Further, in accordance with DoD acquisition guidance, the Acquisition Oversight IPT resolved as many issues as possible, and elevated remaining issues to the DoD CIO who issued ADMs to provide ongoing program direction and guidance. Lastly, citing DoD guidance issued in May 1997 (see page 53) and the previously discussed certification guidance issued in July 2000, the Deputy CIO disagreed that DoD had not established specific criteria for or defined a common approach to evaluating the basis for CCA certification.

Audit Response. In several cases, the Deputy CIO comments paralleled those provided by the Assistant Secretary. The audit response from the Assistant Secretary also addressed the Deputy CIO comments concerning the factors that contributed to an insufficient basis for unconditional certification of DCPDS. As such, we have limited this audit response to the unique aspects of comments made by the Deputy CIO.

Regarding the use of draft procedures for DCPDS certification, we believe that official guidance is preferable to draft guidance because there is no question as to its applicability. However, in considering management comments, we agree that the use of draft procedures during the DCPDS certification process did not materially affect the validity of the certification. Accordingly, we removed the use of draft certification procedures as a cause of the insufficient basis for an unqualified certification by the CIO.

Concerning the adequacy of data analysis for certification, we do not understand the basis for the CIO assertion that the relevant data was analyzed and found to adequately support certification. The draft report recognized that the DCPDS certification review team, in briefing the DoD CIO, presented qualified confirmations of steps taken for business process reengineering, analysis of alternatives, and performance measures, because the GAO previously identified

problems in those areas. The review team recommended certification because CPMS had initiated action to address GAO concerns. However, we found no documentation of the review team's action to review and verify the extent or reasonableness of CPMS actions. The GAO report provided ample indicators that DCPDS had not been developed in accordance with the intent of the CCA. Although it was too late in the DCPDS development process to apply all CCA principles, the CIO certification report should have acknowledged that fact and appropriately qualified the CCA certification.

As discussed in the report, we do not agree with the Deputy CIO assertion that key acquisition documents were appropriately approved and submitted for MDA consideration prior to the Milestone I or Milestone III reviews.

The report acknowledges that the CIO issued guidance on CCA certification. However, as further discussed in the report, the guidance was very broad and did not provide specific criteria to evaluate CCA compliance by DoD Components. Additionally, no common approach for determining CCA compliance was specified. The CIO needs to issue specific criteria so that oversight organizations and functional proponents can ensure that programs, such as DCPDS, are consistently and sufficiently assessed as to their compliance with the intent of the CCA.

Appendix E. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics
Under Secretary of Defense (Comptroller)/Chief Financial Officer
 Deputy Chief Financial Officer
 Deputy Comptroller (Program/Budget)
 Director, Program Analysis and Evaluation
Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)
 Deputy Assistant Secretary of Defense (Deputy Chief Information Officer)
 Director, Investment and Acquisition
Assistant Secretary of Defense (Force Management Policy)
 Deputy Assistant Secretary of Defense (Civilian Personnel Policy)
 Director, Civilian Personnel Management Service

Department of the Army

Auditor General, Department of the Army

Department of the Navy

Naval Inspector General

Department of the Air Force

Assistant Secretary of the Air Force (Acquisition)
Assistant Secretary of the Air Force (Financial Management and Comptroller)
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Other Defense Organizations

Defense Logistics Agency

Non-Defense Federal Organizations

Office of Management and Budget

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Government Reform
House Subcommittee on Government Management, Information, and Technology,
Committee on Government Reform
House Subcommittee on National Security, Veterans Affairs, and International
Relations, Committee on Government Reform
House Subcommittee on Technology and Procurement Policy, Committee on
Government Reform

Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) Comments



COMMAND, CONTROL,
COMMUNICATIONS, AND
INTELLIGENCE

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
6000 DEFENSE PENTAGON
WASHINGTON, DC 20301-6000
March 16, 2001

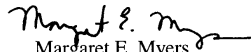
MEMORANDUM FOR DIRECTOR, ACQUISITION MANAGEMENT
DoD OFFICE OF THE INSPECTOR GENERAL

SUBJECT: DoD IG Audit, Clinger-Cohen Act Certification of the Defense Civilian Personnel
Data System (DCPDS) (Project No. D2000AS-0212)

Thank you for the opportunity to review and comment on your December 15, 2000, draft
audit report, subject as above. Our specific comments on the subject report's findings and
recommendations are attached.

We are still in the early stages of certifying Clinger-Cohen Act compliance for Major
Automated Information Systems and are trying to improve the process as we move forward. We
agree with your recommendation that we need better standards and guidelines for the programs to
use in developing their certifications. We are already using your findings to strengthen our
process as we deal with the new certification actions that are coming along.

We appreciate the exchanges we have had with members of the OIG audit team and thank
them for their diligence.


Margaret E. Myers

Acting Deputy Chief Information Officer

Attachment
As Stated

cc:
Deputy Assistant Secretary of Defense
(Civilian Personnel Policy) OUSD(P&R)
Principal Deputy Assistant Secretary of the
Air Force for Business and Information Management



**Response to Office of the Inspector General (OIG), DoD Draft Audit Report
“Clinger-Cohen Act Certification of the
Defense Civilian Personnel Data System (DCPDS),”
Project No. D2000AS-0212, December 15, 2000**

DoD CIO COMMENTS:

The DoD IG finding that the Department of Defense Chief Information Officer (DoD CIO) lacked a sufficient basis to certify, without qualification, that the Defense Civilian Personnel Data System (DCPDS) met the requirements of the Clinger-Cohen Act contains several distinct causes for their assertion. We disagree with this finding. Building on our existing regulatory acquisition guidance, the DoD CIO put in place an effective certification process to assess major automated information systems (AIS) compliance with the Clinger-Cohen Act (CCA) of 1996. The DoD CIO specific responses are summarized as follows:

1.A. Finding:

The certification occurred before the procedures for the certification review were finalized.

DoD CIO Comments: Non-concur

While the statement is true, the use of the draft procedures to conduct the DCPDS certification review did not impact the validity of the certification. Both draft and final versions of Section 8121 (b) certification procedures contained identical requirements for certification. Since DCPDS was the second program certified with the DOD CIO, and senior officials were given full briefings on certification procedures for the first program, Reserve Component Automation System (RCAS). Further, the RCAS certification package was provided in draft to congressional staff for review and comment. Their comments were incorporated into the certification process and briefed to senior staff.

In December 1999, before DCPDS certification, a DoD-wide Working-Level Integrated Product Team (WIPT) was established to review current practices and develop a DoD standard certification process for implementing the Section 8121(b) of the FY 2000 DoD Appropriations Act. The guidance included detailed procedures for certification as well as a comprehensive set of questions to be used to examine each congressional interest item: business process reengineering, analysis of alternatives, economic analysis, performance measures, and an information assurance strategy. Before releasing the guidance, extensive briefings were conducted of the certification process throughout the DoD, including the CIO Executive Board. On July 13, 2000, the DoD CIO issued formal certification guidance, Department of Defense (DoD) Information Technology (IT) Systems Certification Requirements.

Specific to DCPDS, a CCA IPT represented by various staff offices within the Office of the Secretary of Defense (OSD) and Civilian Personnel Management Services (CPMS) was formed to assist the CPMS and Air Force Personnel Center Central Design Activity (CDA) in the preparation for certification. Given common membership on the DoD-wide WIPT and the CCA

IPT for DCPDS, consistency and uniformity of procedures were maintained. Further, the Air Force CIO concurred that Air Force sections (performance measure and information assurance) of the DCPDS certification report correctly document DCPDS Compliance with CCA and recommended the DoD CIO certify DCPDS. Finally, the certification report and notification letters to the defense congressional committees were coordinated with, and endorsed by, the following:

- Office of the Under Secretary of Defense (Comptroller);
- Office of the Director, Program Analysis and Evaluation;
- Office of the Assistant Secretary of Defense of Legislative Affairs;
- Office of the Deputy Under Secretary of Defense for Program Integration;
- Office of General Counsel;
- Office of the Deputy Assistant Secretary of Defense for Civilian Personnel Policy;
- Office of the Assistant Secretary of the Air Force for Acquisition.

We believe strongly that this course of action was prudent, given the potential disruptive effects on program acquisition that would have occurred by waiting until the certification guidance was finally signed. Both the GAO and DoDIG assert that the DCPDS program should not be suspended until all requirements were met.

1.B. Finding:

Previously identified CCA compliance issues had not been fully resolved, and relevant data were not adequately analyzed.

DoD CIO Comments: Non-concur.

In January 1999, the GAO identified DCPDS development problems related to each of the five interest items: Business Process Reengineering, Analysis of Alternatives, Economic Analysis, Performance Measures, and Information Assurance (GAO Report No. 99.20, "Defense IRM: Alternatives Should Be Considered in Developing the New Civilian Personnel System," January 1999). However, the GAO report recognized that the CCA was not in existence when DoD made the initial decision to develop DCPDS. Nevertheless, CPMS had made a prudent effort to develop DCPDS in accordance with regulatory guidance in existence at the time the initial decisions were made. CPMS and GAO continue to have ongoing interaction to address and satisfy GAO priorities. Further, the CCA WIPT addressed each interest item during the certification review and found that CPMS had initiated actions to address GAO Findings. The data submitted for each item was analyzed and found to adequately support CCA certification.

- Business Process Reengineering: CPMS implemented several business process improvements and continued to evaluate further potential improvements. The DoD IG acknowledged these actions. In addition, both GAO and the DoD IG agreed with CPMS

officials that it was potentially too late in the DCPDS development process to effectively reengineer personnel management processes.

- Analysis of Alternatives and Economic Analysis: CPMS concurred with the GAO that they will evaluate business and system alternatives, select the most cost beneficial, and implement a transition plan for this alternative prior to deployment beyond the test sites.
- Performance Measures: CPMS identified four major performance measure categories: 1) servicing ratio, 2) customer satisfaction, 3) process cycle time, and 4) regulatory compliance. GAO audit reported that, while performance measures have been developed, standard DoD data is needed for comparison. CPMS has initiated actions to address GAO findings.
- Information Assurance: The DoDIG acknowledged that DoD adequately and fairly described the DCPDS information assurance posture in the congressional notification.

1.C. Finding:

Key acquisition documents either were not prepared or were not prepared and approved in a timely manner, and were not regularly updated.

DoD CIO Comments: Non-concur

Appropriate DoD senior officials in support of DCPDS approved all key acquisition documentation in accordance with DoD Directive 5000.1 and DoD 5000.2-R. These documents included the Mission Needs Statement, Economic Analysis, Operational Requirements Document (ORD), Acquisition Program Baseline (APB), Security Plan, and Test and Evaluation Master Plan. These documents were also appropriately updated in accordance with DoD directives. For example, the ORD was approved in October 1996 and updated and approved in November 1999 prior to the Milestone III review. The Economic Analysis was approved in January 1996 and update and approved in January 2000. Likewise, the APB was approved in October 1998 and revised and approved in October 1999 prior to the Milestone III review.

Regarding the timely updates of these document, because DCPDS is a DoD-wide program, its documentation required extensive coordination to gain approval from the Military Services and Defense agencies. Nevertheless, acquisition oversight officials were always apprised of the status of key acquisition documents through the Acquisition Oversight Integrated Product Team (AOIPT) that met monthly and actively monitored program progress as well as the completion of key acquisition documents in support of all acquisition decisions.

1.D. Finding:

Milestone exit criteria were not well defined or sufficiently tracked and enforced

DoD CIO Comments: Non-concur

Acquisition documentation requirements as well as milestone exit criteria for each program milestone were established in accordance with DoD Directive 5000.1 and DoD 5000.2-R. The Milestone Decision Authority (MDA), through the Acquisition Decision Memoranda, provided the necessary direction and milestone exit criteria for each milestone review. The AOIPT actively tracked MDA decisions and documentation requirements through monthly program reviews from March 1997 through August 2000.

The AOIPT was instrumental in developing the cost, schedule, and performance baseline for the program, to include the cost, schedule, and performance objectives that would be achieved by the DoD Components. The acquisition oversight staff used that baseline to monitor the program. That APB reflected the total program, both modernization and regionalization. Prior to this action, the program baseline had been complicated due to the multi-contributions of the Components. It also provided program progress updates, established and tracked action items, and traced audits and reviews. For example, the AOIPT tracked the updates and approval of key acquisition documents, including the Operational Requirements Document (ORD), Acquisition Program Baseline (APB), Test and Evaluation Master Plan (TEMP) and Security Plan. In addition, it ensured the timely update and approval of the Memorandum of Agreement between CPMS and the Air Force acquisition community as recommended in an earlier DoDIG report, "Acquisition Management of the Defense Civilian Personnel Data System," dated December 16, 1997.

1.E. Finding:

CIO management controls for overseeing the DCPDS development did not provide active oversight participation and involvement by senior DoD advisors at key decision points or adequate and ongoing direction and guidance to the DCPDS Program.

DoD CIO Comments: Non-concur

The DoD Instruction 5000.2 and DoD 5000.2-R state that the Department should use Integrated Product Teams (IPTs) to conduct acquisition and oversight. Consistent with this approach, the Air Force Acquisition Staff, in coordination with the OASD(C3I), chartered the DCPDS AOIPT in July 1997. The AOIPT included representation from stakeholders in the functional, acquisition, testing, security, Comptroller, C3I, and the Component communities. Their representatives on the AOIPT kept senior oversight officials abreast of the program. The goal of the AOIPT is to resolve as many issues and concerns at the lowest level possible and to expeditiously escalate issues that need resolution at a higher level, to include functional issues that can only be resolved by the Principal Staff Assistant (PSA) and other functional stakeholders. We recognized that the PSA has responsibility of the mission area. However, when there were unsolved functional issues that impeded program execution, the DoD CIO issued an ADM directing the PSA and functional stakeholders to resolve the issues. Further, all ADMs, providing ongoing direction and guidance to the program were coordinated with senior DoD officials prior to issuance.

1.F. Finding:

The CIO did not establish specific criteria for or define a common approach to evaluating the basis for CCA certification.

DoD CIO Comments: Non-concur

The DoD CIO issued policy guidance on July 13, 2000, "Department of Defense (DoD) Information Technology (IT) Systems Certification Requirements," to implement Section 8121 of the DoD Appropriation Act of FY 2000 (see attachment). Our existing regulatory guidance for major Defense acquisition of May 1997, "Requirements for Compliance with Reform Legislation for Information Technology (IT) Acquisitions (Including National Security Systems)" provided the framework for compliance with reformed and point of departure for the CCA certification process (see attachment). Our July 13, 2000 guidance requires that the Component head prepare a compliance report confirming that steps were taken to address the congressional interest items, and provide descriptions of the steps taken to address the congressional interest items, and descriptions of the steps taken.

Our guidance on certification also included a Section 8121(b)-confirmation matrix outlining the requirements or criteria for confirming the adequacy of the steps taken to address the five interest items. The matrix also identified sources of reference for specific guidelines to assess the five interest items. Further, the guidance requires the Component head to concur that the subject system was developed in accordance with the CCA. The guidance also included a sample template for compliance reporting. The template indicated that compliance could be determined by assessing the steps taken for the five specific interest items.

RECOMMENDATIONS:

I-A Recommendation:

The DoDIG recommends that the Chief Information Officer (CIO), DoD, Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) clarify and enhance the criteria and approach to be used by DoD Components for determining whether major automated information systems are developed in accordance with the Clinger-Cohen Act of 1996.

DoD CIO Comments: Concur.

We agree that there is a need for better guidelines and standards for some of the CCA compliance areas, such as BPR, Analysis of Alternatives, Performance Measurement and Economic Analysis. Some of these are already being developed by the OSD offices responsible for those areas. The Office of the DoD CIO plans to partner with the DoD Component and OSD oversight community to ensure that such guidelines and standards are developed.

We should also note that the Office of the DoD CIO is responsible for additional policies regarding the implementation of the CCA that were published in the January 4, 2001, update to DoD Instruction 5000.2. These new policies are primarily contained in sections 4.7.3.1.5 and 4.7.3.2.3.2 of DoD I 5000.2, and are in implementation of Section 811 of the Floyd D. Spence National Defense Authorizations Act for Fiscal Year 2001.

I-B. Recommendation:

Strengthen Chief Information Officer oversight processes, including the process for certifying that Major Automated Information Systems are developed in accordance with the Clinger-Cohen Act of 1996, by periodically confirming the accuracy and adequacy of information reported by DoD components.

DoD CIO Comments: Concur.

Recent changes to DoD 5000 documentation require that the CIOs of the department certify or confirm compliance with Clinger-Cohen Act (CCA) mandates in a number of key areas. The language in DoD Instruction 5000.2 states that CIOs must confirm that: the acquisition supports core, priority functions that need to be performed by the Federal Government; no private sector or government source can better support the function; the processes that the system supports have been redesigned to reduce costs, improve effectiveness and maximize the use of COTS; an analysis of alternatives (AoA) has been conducted; for AIS, an economic analysis (EA) has been conducted that includes a calculation of the return on investment (ROI); there are clearly established measures and accountability for program progress; mission-related, outcome-based performance measures have been established and linked to strategic goals; the program has an information assurance strategy that is consistent with DoD policies, standards, and architectures; the acquisition is consistent with the Global Information Grid policies and architecture, to include relevant standards; to the maximum extent practicable, (1) modular contracting is being used, and (2) the program is being implemented in phased, successive blocks; and, the system being acquired is registered with the DoD CIO.

As stated earlier, the Office of the Deputy CIO (ODCIO) is working to ensure that there are DoD guidelines with criteria and standards to implement these policies.

I-C. Recommendation:

Implement, in coordination with the Director, Civilian Personnel Management Service, standard DoD performance measures for the Defense Civilian Personnel Data System.

DoD CIO Comments: Non-concur.

Performance measures specifically for the modern DCPDS have been established as key performance parameters outlined in the Operational Requirements Document (ORD) and indicate the required level of system performance to support civilian personnel operations.

Revised,
page 18

Technical performance measures were captured in the ORD as well as the APB. Through the APB process, the MDA has controlled the technical and operational measures at the system level. However, the PSA and the functional stakeholders responsible for the mission area determine functional performance measures under DoD CIO oversight.

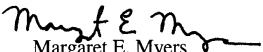
I-D. Recommendation:

Provide oversight of the Defense Civilian Personnel Data System program acquisition and management responsibilities performed by the Civilian Personnel Management Service (CPMS) during Phase III and enforce the requirements of the acquisition decision memorandum.

DoD CIO Comments: Concur

We will continue to oversee the DCPDS acquisition and management throughout Phase III, Deployment and Operational Support, to ensure compliance with the Acquisition Decision Memorandum (ADM). The ADM provided a conditional Milestone III approval, authorizing the program to begin fielding, subject to the completion of four requirements. One of the requirements was that CPMS fully develop the mission-essential functions for the modern DCPDS and that the Air Force Operational Test and Evaluation Center perform the appropriate operational testing before fielding. We are currently meeting with representatives from CPMS, the Air Force Operational Testing and Evaluation Center (AFOTEC) and the Office of the Director Operational Test and Evaluation to monitor progress toward full deployment and operations of the modern DCPDS.

If you have any questions on the above, please direct them to my action officer, Mr. Edward Wingfield @ (703) 602-0980 x126.


Margaret E. Myers
Acting Deputy Chief Information Officer

Attachments
As Stated



ASSISTANT SECRETARY OF DEFENSE
6000 DEFENSE PENTAGON
WASHINGTON, DC 20301-6000



July 13, 2000

COMMAND, CONTROL,
COMMUNICATIONS, AND
INTELLIGENCE

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Department of Defense (DoD) Information Technology (IT) Systems
Certification Requirements

This memorandum provides guidance on certification of Major Automated Information Systems (MAIS) compliance with the Clinger-Cohen Act (CCA) of 1996 (40 U.S.C. 1401 et seq.). Section 8121 (b) of the DoD Appropriations Act, 2000 requires the DoD Chief Information Officer (CIO) to certify that MAIS are being developed in accordance with CCA prior to each Milestone approval after Milestone 0. All MAIS programs (including those in Acquisition Category (ACAT) IAM, ACAT IAC and those designated as Special Interest Initiatives) that are scheduled for Milestone approval in FY 2000 are subject to this certification. The certification process for these initiatives will be tailored as appropriate. The DoD CIO is updating the current list of DoD major IT investments subject to certification (dated May 5, 1999). It will be provided to you upon completion.

The statute requires the DoD CIO to notify the Congress of MAIS certifications in a timely manner. Such notifications to Congress must include the program funding baseline, Milestone schedule and, at a minimum, confirmation that the following requirements have been satisfied with respect to the program:

- **Business Process Reengineering:** Describe actions taken to streamline or reengineer the business processes before decisions were made to invest in the new IT system.
- **Analysis of Alternatives:** Identify and discuss alternatives analyzed to justify the preferred alternative to be initiated to satisfy a valid mission need.
- **Economic Analysis:** Include a calculation of the return on investment.
- **Performance Measures:** Describe measurable performance indicators used to systematically track the progress made in achieving predetermined goals.
- **Information Assurance (IA):** Identify an information assurance strategy consistent with the Department's policies, standards, and architectures.

A description of these requirements is contained in the joint memorandum of May 1, 1997, "Requirements for Compliance with Reform Legislation for Information Technology (IT) Acquisitions (Including National Security Systems)." That memorandum remains in effect and many of its requirements have been incorporated into the existing regulatory guidance and our



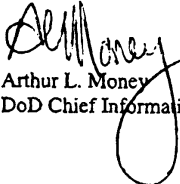
oversight processes. In addition, the DoD CIO will determine any additional requirements for certification, as appropriate, on a case by case basis.

The procedures for MAIS certification will be similar to those followed for Milestone reviews. The DoD Component Head or designee shall prepare the CCA Compliance Report prior to Milestone approval for ACAT IAM and ACAT IAC programs using Attachment 1, the Confirmation Matrix. Also, Attachment 2 is provided as sample templates for the Compliance Report and CIO Certification Report. Components shall submit the certification documentation to the DoD CIO for ACAT IAM and ACAT IAC programs at least six weeks prior to scheduled Milestone approval. In addition, the following procedures shall be followed:

- **ACAT-IAM Programs and Special Interest Programs for DCIO Review:**
The Component Head or designee shall concur with the CCA Compliance Report. The DoD CIO will prepare the Certification Report for congressional notification. The DoD CIO will coordinate the CCA Certification Report with the Director for Program Analysis and Evaluation (PA&E), Under Secretary of Defense (Comptroller), General Counsel, Legislative Affairs, and other applicable staff elements.
- **ACAT-IAC Programs and Special Interest Programs for Component CIO Review:** Component Head or designee shall approve the CCA Compliance Report and prepare the Certification Report for DoD CIO approval and congressional notification. The DoD CIO will use the same coordination process for the Certification Report as for IAM programs as stated above.

Attachments 1 and 2 reflect the minimum requirements with the applicable Milestone decision points for certification. The Clinger-Cohen Act certification will be addressed in the next edition of DoD Instruction 5000.2. Links to documents referenced in this memorandum are at the Links page URL: <http://www.c3i.osd.mil/org/cio/index.html>.

My point of contact for this effort is Mr. Edward Wingfield, (703) 604-1583, ed.wingfield@osd.pentagon.mil.


Arthur L. Money
DoD Chief Information Officer

Attachments:
As stated

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Section 8121(b) Confirmation Matrix
(Applies to all Milestones)

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Other References	Office of Primary Responsibility
(A). Business Process Reengineering (BPR):				PSA, CAE, JS, CIO & PA&B
i. Identify the governance process through which the programs executive leadership manages change. (GAO/AIMD-10.1.15: Issues 3, 4, 7 and 8)*	40 USC 1413 (b)(2)(B)(C) 40 USC 1423 (4)(5)	"Planning, Budgeting, and Acquisition of Capital Assets" OMB Circular A-11 July 1999	Strategic Plans	
ii. How has program mission been aligned with strategic goals? Have mission critical processes been defined and mapped? (GAO/AIMD-10.1.15: Issue 1)*	GPRA 5 USC 306 GPRA 31 USC 1115 PRA 44 USC 3506(b)(3)(C)	"Capital Programming Guide" V 1. OMB July 1997 "Business Process Reengineering Guide" GAO/AIMD-10.1.15 May 1997*	Performance Plan Mission Need Statement (MNS) Capstone Requirements Document (CRD) Operational Requirements Document (ORD)	
iii. Have the gaps been assessed between current performance and functional proponent/user needs? Has current performance been benchmarked? Have the gaps been defined in terms of functional requirements? (GAO/AIMD-10.1.15: Issue 2)*				

* DoD CIO Interim policy on Business Process Reengineering will be based on this GAO Guide

Attachment 1

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Other References	Office of Primary Responsibility
(A). Business Process Reengineering (con't)				
iv. (GAO/AIMD-10-1.15: Issues 3 and 6)* A. Can the process be eliminated? B. Can the process be accomplished more efficiently by other federal organization, e.g., another Component or even another organization within the same Component? C. Can the process or system be outsourced in part or entirely?	40 USC 1422 (b)(1)(3)(5) 40 USC 1423 (1)(3) 40 USC 1461 et seq.			

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Potential Information Source	Office of Primary Responsibility
(B) Analysis of Alternatives (AoA)				PSA, CAE, JS, CIO & PA&E
i. Develop and update business case for IT funding to support core functional requirements identified through the BPR process and needed to meet mission needs. (GAO/AIMD-10.1.15: Issues 3 and 6)*	Same as for BPR Above Plus	Same as for BPR	Mission Need Statement	
ii. (GAO/AIMD-10.1.15: Issues 3 and 6)*	40 USC 1412(c)		Analysis of Alternatives	
A. Does the proposed investment in IT support core mission and functions that need to be performed by the Government? If not, then eliminate or privatize the functions.	40 USC 1422(b)(1)(3)(5) 40 USC 1423(1)(3) 40 USC 1461 et seq.			
B. Does the investment need to be undertaken by DoD because no alternative private sector or governmental sources can better support the function? Did this decision consider the requirements of OMB Circular A-76?				
C. Does the investment support work processes that have been simplified or otherwise redesigned to reduce cost, improve effectiveness, and make maximum use of COTS technology? If not, management should reengineer business process first, then search for alternatives				
iii. Has a performance-based, risk adjusted analysis of benefits and costs been developed for each reasonable design alternative? GAO/AIMD-10.1.15: Issues 5, as well as 3 and 6)*				

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Other References	Office of Primary Responsibility
(C). Economic Analysis (EA)				PSA, JS, CIO, PA&E & PEO
Does the projected return on investment (ROI) calculation support the preferred alternative? Identify elements to be considered in ROI including improvements to mission performance, resource savings, or qualitative mission benefits.) If possible provide an overall ROI for each increment of an incremental or evolutionary acquisition program.	40 USC 1412(c) 40 USC 1422(b)(5)(6)	Same as for BPR Plus OMB Circular A-94 "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs" OD/PA&E Draft Economic Analysis Guidance	Analysis of Alternatives Life-Cycle Cost (and Benefit) Estimate	

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Other References	Office of Primary Responsibility
<p>(D) Performance Measures</p> <p>i. Are there clearly established mission performance measures and accountability for program progress for post deployment and evaluation? (GAO/AIMD-10.1.15: Issue 9)*</p> <p>ii. Are these performance measures linked to DoD strategic goals and objectives? (GAO/AIMD-10.1.15: Issue 9)*</p> <p>iii. Are acquisition performance measures being used? Describe application of performance measures in evaluation of mission accomplishment.</p>	<p>40 USC 1412(c)</p> <p>40 USC 1423(1)(3)</p> <p>40 USC 1427</p> <p>40 USC 1425(c)(2)</p> <p>PRA 44 USC 3506(b)(3)(A)(C)</p> <p>CFO 31 USC 902(a)(3)(7)</p> <p>FASA 41 USC 263</p>	Same as for BPR	<p>Mission Need Statement (MNS)</p> <p>Test and Evaluation Master Plan (TEMP)</p> <p>Acquisition Program Baseline (APB)</p> <p>Operational Requirements Document (ORD)</p> <p>Concept of Operations (CONOPS)</p> <p>Doctrine</p> <p>Strategic Plans</p>	PSA, JS, CIO, PA&E, DOT&E & PEO

Section 8121 Confirmation Requirements	Statutory Basis	Assessment Guidelines	Other References	Office of Primary Responsibility
(E). Information Assurance (IA)				
i. What security features, practices procedures and architectures of an IT system accurately mediates and enforces the DoD security policy?	40 USC 1413 (b)(2)(D) 40 USC 1423(6)	DoDI 5240.40, "DoD Information Technology Security Certification and Accreditation Process (DITSCAP)"	Information Assurance Strategy C4I Support Plan	C3I & PEO
ii. Show how IA features are consistent with DoD policies, standards, and architectures.	40 USC 1425	C4ISR Architecture Framework V2.0		CIO
iii. Discuss provisions for restoration of information systems by incorporating protection, detection and recovery capabilities and how IA attributes were built into the program from the beginning.				

PRA: Paperwork Reduction Act of 1995, as amended (P.L. 104-13; May 22, 1995)
CFOA: Chief Financial Officers Act of 1990, as amended (P.L. 101-576, November 15, 1990)
GPRA: The Government Performance and Results Act of 1993 (P.L. 103-62, August 3, 1993)
FASA: Federal Acquisition Streamlining Act of 1994 (P.L. 103-555, October 13, 1994)

Information below is addressed in the write-up documentation:

Notification Requirements	Assessment Guidelines	Milestone Applicability	Office of Primary Responsibility
Funding Baseline and Milestone Schedule Show how funding baseline and Milestone schedules have been established and maintained since the inception of the program?	DoD 5000.2-R	Information Technology Capital Investment Justification Exhibit (IT 300b); Acquisition Program Baseline (APB); Economic Analysis.	C3I, PA&E, USD(C)



OFFICE OF THE SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

1 May 1997

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Requirements for Compliance with Reform Legislation for Information
Technology (IT) Acquisitions (Including National Security Systems)

In the past several years, Congress has enacted legislation intended to improve the management and performance of Federal Agencies. These laws include Division E of the Clinger-Cohen Act of 1996 (formerly titled the Information Technology Management Reform Act of 1996 and hereinafter referred to as the ITMRA), the Government Performance and Results Act (GPRA) of 1993, and the Paperwork Reduction Act (PRA) of 1995. Furthermore, recent guidance from the Office of Management and Budget (OMB) places added emphasis on managing investments, to include weapon systems. Most of our regulatory guidance for major Defense acquisitions is consistent with the intent of these laws. However, we need to formally incorporate these requirements into the regulatory guidance and our oversight processes.

The ITMRA applies to all IT acquisitions, including IT supporting weapon systems and other National Security Systems (NSS). It requires the Secretary of Defense to maximize the value and assess and manage the risks of the Department's (IT) acquisitions. As the DoD Chief Information Officer (CIO), the ASD(C3I) is responsible for ensuring that IT is acquired and information resources are managed for the Department within an integrated management framework.

NSS acquisitions will be reviewed by the appropriate Milestone Decision Authority (MDA) to ensure they comply with applicable provisions of ITMRA. Sections 5123, 5125, and 5126 and 5113(b)(5)(except for subparagraph (B)(iv)) apply to all NSS. Initially, sections 5112, 5122, and the remainder of 5113 will apply to individual NSS except as determined not to be practicable on a case by case basis. Guidance to assist in making this determination will be developed by the offices of the DoD CIO and USD(A&T). For NSS subject to review by the Defense Acquisition Board, the DoD CIO shall provide an assessment of ITMRA compliance to the MDA through the DAB integrated product team (IPT) process. Component Milestone Decision Authorities (MDAs) and CIOs should follow similar practices for IT programs subject to their review and approval.

The attached matrix correlates the ITMRA, GPRA, and PRA requirements with the other statutory and DoD regulatory acquisition requirements. To help ensure program success, IPT members should consider these requirements as programs progress through the acquisition process. These requirements shall be applied, as appropriate to each increment of incremental

and evolutionary programs. To the maximum extent possible, these requirements should be addressed by incorporating them into existing acquisition processes, procedures, and documents.

At each major milestone, the MDA and the CIO will address these requirements as follows:

Pre Milestone 0. Some of these requirements (those that address the need for IT and the processes supported by IT) are the responsibility of the user or the functional proponent. Responsibility for ensuring compliance with these requirements prior to MDA Milestone 0 approval belongs to the appropriate user or functional proponent in coordination with the Joint Requirements Oversight Council (JROC) process, the Component, or the Principal Staff Assistant (PSA).

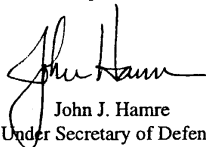
Milestones 0 through III. Many of these requirements are similar to those that are currently provided in DoD 5000.2-R and are, therefore, appropriate for MDA review at each major milestone. For NSS subject to review by the Defense Acquisition Board, the CIO shall provide the MDA an assessment of compliance with these requirements through the DAB IPT process.

Post Milestone III. Milestone III Acquisition Decision Memoranda (ADMs) will include post-deployment performance evaluation and other performance measures guidance, as appropriate. The ADM should be clear that the user or functional proponent will perform this post-deployment evaluation and provide the results to the CIO.

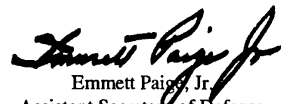
Please submit your MAISRC-related questions to Dr. Margaret Myers at (703) 681-4986, e-mail address: margaret.myers@osd.mil. Your DAB or NSS-related questions should be directed to Ms. Joanne Ferguson, (703) 695-0906, e-mail address: joanne.ferguson@osd.mil. General comments can be submitted to either point of contact.



Paul G. Kaminski
Under Secretary of Defense
(Acquisition & Technology)



John J. Hamre
Under Secretary of Defense
(Comptroller)
Chief Financial Officer



Emmett Paige, Jr.
Assistant Secretary of Defense
(Command, Control, Communications,
and Intelligence)
Chief Information Officer

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Directors of the Field Activities
Service Acquisition Executives
Chief Information Officers of the Department of Defense

CIO and DoD Program Requirements									
Program Requirement (Short Title)	Source of Requirement*		Milestone Applicability			Potential Information Source	Prepared By	Approval***/ Considered By	
	Statutory	Regulatory	0	I	II	III			
Does it support DoD Core/Primary mission functions? (core mission)	Sec. 5123 (1),(3); Sec. 3501(10); GPRA	Part 2.3; CICS MOP 77	X				Mission Need Statement (with linkage to DoD Strategic Plan), ORD	Component	JROC***/ PSA***
Is it an inherently government function? (outsourcing)	Sec. 5113 (b)(2)(B)	Parts 2.3.1, 2.4	X	X			Mission Need Statement, ORD, Analysis of Alternatives	Component PSA/ Component	JROC***/ PSA*** MDA
Have work processes been redesigned to reduce costs and improve effectiveness (including benchmarking against comparable processes in other public or private organizations)? (BPR/benchmarking)	Sec. 5123 (4 & 5)	Parts 2.3, 2.4; OMB Cir A-130	X	X			Mission Need Statement, Analysis of Alternatives	Component PSA/ Component	JROC***/ PSA*** MDA
Does it maximize use of COTS technology? (COTS solution)	Sec. 5122 (b)(3), Sec. 5201; 10 USC 2377; FASA Sec 8104	Part 2.3	X	X			Mission Need Statement, Analysis of Alternatives	Component PSA/ Component	JROC***/ PSA*** MDA

CIO and DoD Program Requirements									
Program Requirement (Short Title)	Source of Requirement*		Milestone Applicability			Potential Information Source	Prepared By	Approval***/ Considered By	
	Statutory	Regulatory	0	I	II	III			
Does the projected ROI support this alternative? [ROI includes: improvements to mission performance, resource savings, or qualitative mission benefits] (ROI)	Sec. 5122 (b)(3)(5); 10 USC 2434; Sec. 3506 (b)(5)	Part 2.3, 2.4, 3.5; OMB Cir A-130	X	X	X	X	Analysis of Alternatives, Life-Cycle Cost (and Benefit) Estimate	PSA/ Component PM	MDA
Are work processes, information flows, and technology integrated to achieve DoD strategic goals? (strategic goals)	Sec. 5123 (1)(5); Sec. 3506 (b)(3)(C)	Part 2.3, 2.6	X	X			Information Technology Management Strategic Plan, PSA/ component strategic plans	PSA/ Component	MDA
Does it reflect DoD's technology vision? (technology)	Sec. 5125 (b)(2); Sec. 3506 (b)(2), (h)(1)	DoDD 4630.5; DoDI 4630.8; CJCSI 6212.01A					Information Technology Management Strategic Plan	CIO	MDA
- Joint Technical Architecture (JTA)		Parts 2.2.1, 4.3.5; 22 Aug 96 JTA Memo	X	X	X	X	Acquisition Strategy, C4I Support Plan	PM	MDA
- Technical Architecture for Information Management (TAfIM)		Parts 4.3.4, 4.3.8	X	X	X	X	Acquisition Strategy	PM	MDA***

CIO and DoD Program Requirements									
Program Requirement (Short Title)	Source of Requirement*		Milestone Applicability			Potential Information Source	Prepared By	Approval***/ Considered By	
	Statutory	Regulatory	0	I	II	III			
Is it Year 2000 compliant? (Year 2000)	Sec. 5122 (b)(3)	16 Aug 96 Year 2000 Memo; 5 Nov 96 DIST Memo	X	X	X	X	Acquisition Strategy, Defense Integration Support Tools (DIST)	PM	MDA***
Does it incorporate standards that enable information exchange and resource sharing while retaining flexibility? (standards/flexibility)	Sec. 5122 (b)(3), Sec. 5202; Sec. 3504 (h)(1), (4)(B) Sec. 3506 (b)(1)(A)	DoDD 8320.1-M							
- Defense Information Infrastructure Common Operating Environment (DII COE)		22 Aug 96 JTA Memo	X	X	X	X	Acquisition Strategy	PM	MDA**
- Automated information collection/Continuous Acquisition and Life-Cycle Support (CALS)		Part 3.3.4.5; DFARS 207.105, 227, 252	X	X	X	X	Acquisition Strategy	PM	MDA***

CIO and DoD Program Requirements									
Program Requirement (Short Title)	Source of Requirement*		Milestone Applicability			Potential Information Source	Prepared By	Approval***/ Considered By	
	Statutory	Regulatory	0	I	II	III			
- Software engineering -- Software reuse -- Software language -- DoD standard data		Part 4.3.5; DoDD 3405.1; DoDD 8320.1		X	X	X	Software Engineering Strategy	PM	MDA
- Information assurance	Sec. 5123 (6); Sec. 3504(g)	Part 4.3.5 & 4.4.6; DoDD TS- 3600.1; DoDD 5200.28		X	X	X	Information Assurance Strategy	PM	MDA
- Electromagnetic Environmental -- Effects (E3) and Spectrum -- Management		Part 4.4.7; DoDD 3222.3; DoDD 4650.1; OMB Cir A-11		X	X	X	C4I Support Plan	PM	MDA
Does it avoid/isolate custom-designed Components? (open systems)	Sec. 5201, Sec. 5202 (a)	Part 4.3.4; USD(A&T) Memo	X	X	X	X	Acquisition Strategy	PM	MDA***
Will it have fully tested pilots, simulation, or prototypes before production/deployment? (OT&E)	10 USC 2399	Part 3.4			X	X	TEMP	PM	DOT&E***

CIO and DoD Program Requirements									
Program Requirement (Short Title)	Source of Requirement*		Milestone Applicability			Potential Information Source	Prepared By	Approval**/ Considered By	
	Statutory	Regulatory	0	I	II III				
Are there clearly established measures and accountability for program progress? Are these measures linked to strategic goals? (performance measures)	Sec. 5123 (1),(3),(4); 10 USC Sec. 2220; Sec. 3506 (b)(2); GPRA		X	X	X	Mission Need Statement, ORD	Component	JROC***/ PSA**	
- Acquisition Program Baseline	10 USC 2220(a)(1), 2435	Part 3.2	X	X	X	APB	PM	MDA***	
- Cost as an Independent Variable (CAIV) objectives		Part 3.3.3; DoDD 5000.1	X	X	X	Acquisition Strategy, APB	PM	MDA***	
- Milestone Exit Criteria	10 USC 2220(a)(1)	Part 3.2.3	X	X	X	ADM	PM	MDA***	
- Software measures		Part 4.3.5	X	X	X	MAISRC Quarterly Report	PM	MDA	

CIO and DoD Program Requirements								
Program Requirement (Short Title)	Source of Requirement*		Milestone Applicability			Potential Information Source	Prepared By	Approval***/ Considered By
	Statutory	Regulatory	0	I	II	III		
Is it supported by all intended users or sponsors? (full funding)	Sec. 5122 (2)	Part 2.5; DoDD 5134.1; OMB Cir A-11		X	X	X	ORD, Affordability Assessment PA&E	JROC***/ PSA*** MDA
Will it be implemented in phased, successive chunks? (incremental)	Sec. 5202	Parts 3.3, 4.3.5		X	X	X	Acquisition Strategy	MDA***
Does the acquisition strategy allocate risk between government and contractor? (contract risk management)	Sec. 5201;	Parts 3.3.2, 3.3.4; FAR; OMB Cir A-131		X	X	X	Acquisition Strategy	MDA***
Does it effectively use competition? (competition)	CICA; 41 USC 418; 10 USC 2318	Part 3.3.4.1; FAR 6.3		X	X	X	Acquisition Strategy	MDA***
Are contract payments tied to accomplishments? (earned value)	Sec. 3506 (b)(2), (5)	Part 3.3.4		X	X	X	Acquisition Strategy, Integrated Baseline Review	MDA***

CIO and DoD Program Requirements						
Program Requirement (Short Title)	Source of Requirement*		Milestone Applicability		Potential Information Source	Prepared By
	Statutory	Regulatory	0	I II III		
Does it take maximum advantage of commercial technology? (COTS components)	Sec. 5201; 10 USC 2377; FASA Sec 8104	Part 3.3.1	X	X X	Acquisition Strategy	PM
						MDA ***
g:\myers.may.prreq.doc(as of: 1 May 97)						

* The program requirements listed in this column are simplified statements of investment guidance being used by the Office of management and Budget (OMB). These requirements are even more simplified statements of the statutory and regulatory sources listed in the column labeled "Source of Requirement."

** All statutory references in **bold** type are to Division E of the Clinger-Cohen Act of 1996, (formerly titled the Information Technology Management Reform Act (ITMRA) of 1996). All statutory references in *italics* are to the Paperwork Reduction Act (PRA) of 1995. All regulatory "Part___" references are to DoD 5000.2-R. Division E of the Clinger-Cohen Act of 1996 Sections 5123, 5125, and 5126 apply to National Security Systems (NSS). The extent to which Sections 5112, 5113, and 5122 do not apply to individual NSS will be determined on a case by case basis.

*** Information source explicitly approved by the official indicated.

Assistant Secretary of Defense (Force Management Policy) Comments



FORCE MANAGEMENT
POLICY

ASSISTANT SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

MAR 6 2001



MEMORANDUM FOR DEPUTY INSPECTOR GENERAL

Subject: Audit Report on Clinger-Cohen Act Certification of the Defense Civilian Personnel Data System (DCPDS) (Project No. D2000AS-0212)

Thank you very much for providing the opportunity for Jeanne Fites, Diane Disney, and me to meet with you and your staff to discuss our concerns about the subject draft audit report.

As we mentioned, our first concern was the focus of the report itself. We had been led to believe that the audit and ensuing report would address Clinger-Cohen certification, using four systems in the analysis. The draft, however, seemed to concentrate on the modern Defense Civilian Personnel Data System (DCPDS) and to evaluate the actions of its managers rather than to address the previously stated aims. Therefore, we greatly appreciate your willingness to recast the document to reflect the stated emphasis on the certification process itself.

Our second concern stemmed from the fact that the Clinger-Cohen Act (CCA) was enacted in 1996. The analysis and documentation supporting the selection of a commercial-off-the-shelf (COTS) product (1994) and the selection of Oracle Human Resources (1995) were completed prior to the CCA's enactment. The draft report fails to acknowledge this fact; instead, it repeatedly alleges that such analysis and documentation were not in compliance with the CCA. We believe that it is important to note that CPMS and DoD followed the regulations, guidance, and best practices that were available at the time, many of which later became incorporated in the CCA. We appreciate your willingness to have the report acknowledge the actual chronology.

We were also concerned about the statements that we had not engaged in sufficient reengineering. To the contrary, the very existence of regionalization and systems modernization constituted a profound reengineering of the way the personnel community conducted its business. Our efforts to produce and release interim process improvements (as one of the few real successes of the Corporate Information Management effort) marked a singular effort both to reengineer processes and to train a computer-illiterate workforce in the use of new tools. These efforts were also accompanied by a revamping of the Civilian Personnel Manual, an effort now more than half way completed that will eliminate over

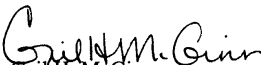


three-quarters of the personnel regulations, thereby greatly streamlining operations. Indeed, few, if any, functional communities within the Department have so fundamentally changed their way of doing business.

As we discussed, the draft contains numerous inaccurate statements and requires clarification in several areas. For example, the draft quotes findings from the General Accounting Office (GAO) Report No. 99-20; however, it does not seem to acknowledge CPMS's efforts to address GAO's concerns and recommendations. In fact, GAO informed CPMS that it was too late in the process to apply the provisions of the CCA retroactively. GAO recommended that we should focus our efforts on regionalization, future IT benchmarking, and technology refresh. We believe that the draft needs revision to remove misleading comments. As promised, the attachment provides details that should help address some information gaps and add clarification.

We believe that the acquisition of the modern DCPDS was in full compliance with all legal and regulatory requirements, the documentation was appropriate and timely, and the analysis was sufficient. Regionalizing civilian personnel service delivery and modernizing the supporting information system will improve the quality of the service and provide substantial cost savings to the Department. As we discussed, it is inappropriate to base program management accountability on retroactive application of policies and procedures. We believe that DoD not only complied with the statutory and regulatory requirements that were in effect when key decisions were made but also followed the best industry practices for those areas where specific guidance was lacking. Per DoD guidance, CPMS adapted to policy and procedural changes as the program evolved. Our attached comments support this position.

Again, we appreciate the opportunity to share our comments, and we particularly appreciate the agreement already reached to delete the reference to add security-related information to the users' manual. We look forward to working with you on the next iteration. My point of contact is Ms. Cheryl Fuller at 703-696-1982.


Gail H. McGinn
Acting Assistant Secretary

Attachment:
As stated

**CPMS COMMENTS ON
THE DOD INSPECTOR GENERAL DRAFT PROPOSED AUDIT
REPORT: CLINGER-COHEN ACT CERTIFICATION OF THE DEFENSE
CIVILIAN PERSONNEL DATA SYSTEM (PROJECT NO. D2000AS-0212)**

Comments are presented in three major categories:

- Comments on Findings
- Comments on Recommendations
- General Comments to Statements made in the Draft

I. COMMENTS ON FINDINGS (Page 4)

I-A. DoD IG Finding:

Previously identified CCA compliance issues had not been fully resolved, and relevant data were not adequately analyzed.

CPMS Comments: Non-concur

The referenced GAO report recognizes that the Clinger-Cohen Act was not in existence when DoD made the initial decision in developing the modern DCPDS. The selection and development of the modern DCPDS followed acquisition regulations and guidelines that were in existence at the time the initial decisions were made. Every effort was made to balance sound objective data with business-based decisions. Initial estimates of costs, benefits, and returns were adequate to ensure that the concept of regionalizing civilian personnel service delivery and modernizing the supporting information system would provide substantial cost savings.

The DoD IG did not consider ongoing interaction between GAO and CPMS action officers subsequent to the publication of the GAO report. During this time, GAO officials assigned CPMS priority actions they wanted accomplished. GAO indicated that its first priority was for the Department to evaluate the current regional service structure and staff structures to ensure they were optimal. The Department did this and is currently staffing the draft reports. GAO also indicated it was inappropriate to evaluate other commercially available products at that time. The DoD IG Audit Follow-up Office was advised of all actions taken by CPMS as well as conversations with GAO regarding this matter, and that office provided no comments to indicate that CPMS was not pursuing the correct actions.

Based on discussions with GAO, subsequent to the publication of the GAO report in January 1999, we have taken steps to address and satisfy GAO priorities. As discussed above, GAO action officers indicated it was too late in the program to determine whether the selection of Oracle HR was optimal. Rather GAO indicated that we should continuously evaluate new HR software applications that could enhance the cost savings realized by the modern DCPDS. Recommend this finding be dropped based on the information provided here and later in the general comments.

Page 5

I-B. DoD IG Finding:

Key acquisition documents either were not prepared or were not prepared and approved in a timely manner, and were not regularly updated.

CPMS Comments: Non-concur

We disagree with this finding and recommend that it be dropped. We regularly updated program documentation and prepared key acquisition documentation in conjunction with the Major Automated Information System Council (MAISRC) process. Prior to each Milestone review, CPMS provided copies of all required program documentation. MAISRC officials were provided status updates and copies of program documentation during the AOIPT's for review and comment. Unlike Component- specific programs, modern DCPDS is a DoD-wide program and required extensive coordination to gain approval from the Military Services and Defense agencies,. This process took an extensive amount of time; however, documents rarely changed from the drafts provided to the AOIPT for review. The MAISRC members were fully aware of the process required for coordination and were satisfied with our progress. At no time was CPMS working in isolation from MAISRC members. As the program evolved, we regularly updated the documentation for the program as required. The AOIPT regularly addressed the status of program documentation and provided guidance when documents needed revision. Program documents were submitted to the appropriate officials on time, despite the official publication and signature date.

By summarizing what happened with regard to four key documents throughout the program's life, the following table shows how and when documentation was prepared, approved, and regularly updated.

Acquisition Program Baseline (APB)		
Document Date	Document	Comments
June 30, 1995	Original Acquisition Program Baseline (APB) Document	Document required by Milestone 0 System Decision Memorandum (SDM) for next Milestone review. Document provided to Major Automated Information Systems Requirements Council (MAISRC) for Milestone I/II Review. Approved on August 16, 1995 by SAF/AQK. Document provided to MAISRC in November 1995, as read ahead material for Milestone I/II review.
October 3, 1996	APB Approved	Document developed based on the May 20, 1996 Milestone I/II Acquisition Decision Memorandum

		(ADM). APB was approved by ASD(FMP).
June 23, 1997	APB Approved	After December 1996 briefing, the OASD(C3I) requested that the APB be updated to define program life cycle costs in greater detail before signing. APB was again approved by ASD(FMP).
February 25, 1998	APB Signed	As a result of a July 3, 1997 ADM, CPMS was required to update the APB. This document was coordinated with all Component PMs and Comptroller representatives, signed by ASD(FMP) and PDASD(C3I) and copy provided to AOIPT.
October 15, 1998	APB Revision 1 Signed	Document revised to reflect program breach in cost schedule. Document coordinated with all Component PMs and Comptroller representatives, signed by PDASD(FMP) and ASD(C3I), and copy provided to AOIPT.
October 11, 1999	APB Revision 2 Signed	Revised to include changes made to Key Performance Parameters (KPPs) and critical technical parameters based on the November 1999 ORD. This document was coordinated with all Component PMs and Comptroller representatives, signed by PDASD(FMP) and ASD(C3I), and copy provided to AOIPT.
Operational Requirements Document (ORD)		
Document Date	Document	Comments
October 1995	Original ORD Approved	Document required by the May 23, 1995 Milestone 0 SDM for next Milestone review. Document provided to MAISRC in November 1995, as read ahead material for Milestone I/II review.
April 25, 1996	ORD Signed	Revised ORD based on the May 20, 1996 Milestone I/II ADM and signed by acquisition PM (APM) and functional PM (FPM). AOIPT advised APM and FPM that document

		must be approved by the ASD(FMP). Document revised and staffed for signature.
October 3, 1996	ORD Approved	ORD revised based on AOIPT direction, as mentioned above. ORD approved by ASD(FMP).
September 19, 1997	ORD Updated	As a result of a July 3, 1997 ADM, CPMS was required to update the ORD. Update included a requirements correlation matrix, a Customer User Agreement, and KPPs. Update provided to AFOTEC and SAF/AQK.
November 1998	ORD Reviewed (adequacy and consistency)	Based on new Test and Evaluation Master Plan (TEMP), review requested by AOIPT.
November 23, 1999	ORD Revised	Updated KPPs and the critical technical parameters. ORD signed by APM and FPM after coordination. Copy provided to the Overarching IPT for Milestone III review.
Test and Evaluation Master Plan (TEMP)		
Document Date	Document	Comments
October 1995	Original TEMP	Document required by Milestone 0 SDM for next Milestone review. Document provided to MASRC in November 1995, for Milestone I/II Review. Signed by APM and FPM and formally reviewed by AFOTEC and SAF/AQK.
April 25, 1996	TEMP Signed	Air Force Test & Evaluation approved on November 15, 1996.
August 1997	TEMP Workgroup Established	As a result of a July 3, 1997, ADM, an update the TEMP was required. The program office updated the TEMP as required but had difficulty obtaining coordination. AIOPT established a critical process action team to resolve issues with the TEMP and expedite coordination. First meeting held October 15, 1997. The TEMP was

		finalized September 28, 1998.
September 28, 1998	TEMP Signed	TEMP signed. Copy used by the Overarching IPT for May 2000 Milestone III review.
Economic Analysis (EA)		
Document Date	Document	Comments
December 29, 1994	PA&E Cost Analysis Approved	By memorandum dated December 29, 1994, Mr. Paige (OSD/C3I) indicated that the PA&E Cost Analysis was sufficient as an approved economic analysis (EA) for the modern DCPDS. During Milestone 0 review, the PA&E staff concluded the EA should be revalidated using the latest cost projections.
December 1995	1995 EA – Initial Preparation	Copy provided in November 1995 to the MAISRC for the Milestone I/II review.
January 17, 1996	1996 EA – Update of 95 EA	Copy provided to AOIPT.
September 29, 1997	1997 EA – Update of 96 EA	As a result of a July 3, 1997 ADM, we were required to update the EA. Copy provided to the AOIPT.
September 20, 1998	1998 EA – Update of 97 EA	Copy provided to AOIPT.
January 2000	1999 EA – Update of 98 EA	Copy provided to the Overarching IPT for the May 2000 Milestone III review.

I-C. DoD IG Finding:

CIO management controls for overseeing the DCPDS development did not provide active oversight participation and involvement by senior DoD advisors at key decision points or adequate and ongoing direction and guidance to the DCPDS Program.

CPMS Comments: Non-concur

We disagree with this finding. Senior oversight officials were involved in the process, including representatives from acquisition, testing, security, Comptroller, C3I, and the Components. Throughout the process the senior DoD advisors were kept abreast of the program by their

representatives on the Acquisition Oversight IPT, and through these representatives they provided ongoing direction and guidance on key decisions. While there was no formal meeting of the Overarching IPT, several times during the process as key decision points were reached, the Deputy Assistant Secretary of Defense (Civilian Personnel Policy) and the Director, CPMS met with Overarching IPT members to discuss these key program decisions.

II. COMMENTS ON RECOMMENDATIONS (Pages 15-16)

II-A. DoD IG Recommendation:

1. We recommend that the Chief Information Officer, DoD, Assistant Secretary of Defense (Command, Control, Communications, and Intelligence):

- c. Implement, in coordination with the Director, Civilian Personnel Management Service, standard DoD performance measures for the Defense Civilian Personnel Data System.

CPMS Comments: Non-concur

Performance measures for DCPDS appear to be measures on how well work is being performed in the operating personnel offices. Therefore, we do not believe that it is appropriate for the CIO to be involved in implementing these performance measures. However, performance measures specifically for the modern DCPDS have been established as key performance parameters outlined in our Operational Requirements Document (ORD) and indicate the required level of system performance to support civilian personnel operations. Additionally, performance measures have been developed to guide the performance of our operation, sustainment, and maintenance contractor to ensure that the modern DCPDS is operated and available to the personnel community in the most efficient manner. The Defense Logistics Agency Contracting Office has reviewed these performance measures for adequacy.

We recommend that 1-c be deleted or at a minimum revised to read: "Coordinate on the DoD standard performance measures developed by the Director, Civilian Personnel Management Service for the Defense Civilian Personnel Data System." While we agree that the CIO needs to be aware of this effort, this recommendation is more appropriately assigned to the Director, CPMS.

II-B. DoD IG Recommendation:

1. We recommend that the Chief Information Officer, DoD, Assistant Secretary of Defense (Command, Control, Communications, and Intelligence):

- d. Provide oversight of the Defense Civilian Personnel Data System program acquisition and management responsibilities performed by the Civilian Personnel Management

Service during Phase III and enforce the requirements of the acquisition decision memorandum.

CPMS Comments: Non-concur

In an information technology acquisition program such as modern DCPDS, Phase III involves logistics management and only residual acquisition responsibilities. CPMS regularly reports the status of accomplishing the requirements of the acquisition decision memorandum to C3I, and provides quarterly Defense Acquisition Executive Summary (DAES) reports. Recommend this be dropped.

II-C. DoD IG Recommendation:

2. We recommend that the Director, Civilian Personnel Management Service, before deploying the Defense Civilian Personnel Data System to further sites:
 - a. Appropriately secure all interfaces between the Defense Civilian Personnel Data System and other automated systems.

CPMS Comments: This recommendation should be removed.

We have already ensured that all our interfaces are appropriately secure and will continue to monitor interface security throughout deployment. A rigorous risk analysis was conducted on the modern DCPDS, to include existing interfaces. Based on the formal operational security test and evaluation, the Designated Approving Authority (DAA) provided full security accreditation for the modern DCPDS on February 22, 2000. Because the DAA accepted the system risks and mitigating circumstances for the modern DCPDS and its interfaces, a delay in deployment is unwarranted and unnecessary. The issue of risk associated with interfaces has been addressed by the modern DCPDS Computer Security Work Group (CSWG) and with the sustainment contractor. CPMS has coordinated with DFAS on our single interface (two-way data feed) that exists between our system and the payroll system. DFAS does not have plans to encrypt this data. It is clear that as the modern DCPDS evolves, the CSWG must review additional and new data feeds, and determine security protection requirements for systems certification. We also recommend revision of the section on Assessment of DCPDS Information Assurance.

II-D. DoD IG Recommendation:

2. We recommend that the Director, Civilian Personnel Management Service, before deploying the Defense Civilian Personnel Data System to further sites:
 - b. Update the Defense Civilian Personnel Data System Users Manual to adequately define password characteristics and procedures to avoid unauthorized use of terminals, and to aid in the appropriate marking of sensitive data.

CPMS Comments: We understand that this recommendation has been removed. We agree with and appreciate that removal.

III. GENERAL COMMENTS TO STATEMENTS MADE IN THE DRAFT REPORT:

The following comments relate directly to the draft report section heading in bold.

III-A. Previously Identified CCA Problems (Page 5)

Please see comments on Page 1, under item I-A.

DoD Investment in DCPDS (Page 6)

Based on discussions with GAO, subsequent to the publication of the GAO report in January 1999, we have taken steps to address and satisfy GAO priorities. As discussed above, GAO action officers indicated it was too late in the program to determine whether the selection of Oracle HR was optimal. Rather, GAO indicated that we should continuously evaluate new HR software applications that could enhance the cost savings realized by the modern DCPDS. Recommend this paragraph be dropped based on these comments and the comments included later on the Analysis of Alternatives and Economic Analysis.

Business Process Reengineering (Page 6)

We disagree with the conclusion that “CPMS officials did not critically examine and redesign their mission delivery processes, as a whole, to achieve the greatest possible benefits before deciding to invest in the modern DCPDS.” The Department has dramatically changed the fundamental way it delivers civilian personnel services, given the current constraints of Federal personnel management laws. Over the past decade, the Department conducted numerous workgroups and studies that looked at the various aspects of the civilian personnel function to identify those areas that could benefit from reengineering improvements. The Department's decision to regionalize the delivery of personnel services and modernize its information system resulted from these studies and workgroups. Additionally, these studies provided the basis for the civilian personnel function to move toward a unified policy framework, and to consolidate common operating functions and services into a single delivery source. By themselves, these decisions represented a fundamental reengineering of processes.

In identifying these sub-areas for further reengineering improvements, the civilian personnel community critically examined and redesigned its business processes to the extent possible, prior to selection of a COTS product and prior to the establishment of CPMS. In this way, the Components revolutionized the delivery of HR support services. The creation of CPMS, the implementation of new processes, and the decision to move to a single automated HR support system evidenced this revolution. However, these efforts were implemented incrementally to

avoid disruption of ongoing HR support operations while we were simultaneously managing the DoD downsizing and reducing the ranks of the personnel community itself. This incremental approach may have diminished the visibility of these changes, but not their effects. Ultimately, the selected COTS software product supports the reengineered business processes and the regionalized infrastructure.

DoD considers its current regionalization and systems modernization initiative a continuing and evolutionary reengineering improvement program effort. DoD gave the Components a DoD regionalization configuration model to design the regional structures. Some deviations to the model were allowed to test the efficiency and effectiveness of different operating methods, allowing the Department to consider best practices for future program improvements. DoD has been recognized as a leader in reengineering and establishing best practices among HR operations.

It is important to consider the extent to which the civilian personnel function is regulated and governed by Public Law implemented by Federal rules and regulations. These rules and regulations are binding on the DoD personnel community and must be followed, thereby affecting the extent to which a process can be reengineered within the personnel function. Additionally, many changes affecting the civilian workforce must be negotiated with the unions. For example, in the Fall of 1997, we kicked off a huge reengineering effort in partnership with union officials attempting to change several personnel processes. However, aside from the area of workforce transition, we were unable to change the personnel processes because union officials resisted the proposed changes.

We recommend revision of this section.

Analysis of Alternatives and Economic Analysis (Pages 6-7)

We disagree with the statement, "DoD had no conclusive evidence that its investment in DCPDS was optimal." CPMS conducted an extensive analysis of alternatives prior to making a COTS selection recommendation. After an exhaustive search for available software and identification of such packages, the list was refined to only three packages that could support the massive Department of Defense requirements. Once the three packages were identified, we conducted a second, more detailed evaluation of each vendor's product. Cost was one of the factors evaluated, but there were several others, including market presence, implementation support, extensibility, graphical user interface, technical features and functionality. All evaluated categories were assigned a weighting factor, and each product was scored independently. The total scores were calculated, and each product was ranked in order of score, with the Oracle HR product scoring well above the other two packages. All of the DoD Components were engaged in review of those data. The Acquisition Program Manager was then authorized to use this information and purchase the alternative that was the most cost efficient and appropriate for the government.

As an indicator of the evidence of the positive value of DoD's investment in the modern DCPDS, the CIO's certification cited a return on investment of 72.6 percent for FY 2000 through 2010, with an annual projected savings of \$223 million per year.

Performance Measures (Page 7)

The DoD IG indicated that CPMS did not have a common base from which to measure DCPDS performance gains. However, the CPMS-developed 1994 DoD Regionalization Planning Guidance required Components to establish a baseline against which the effects of regionalization and systems modernization could be measured and assessed. The Components developed and secured approval of a core evaluation plan to assess the effects of the Regionalization and Modernization Program on the quality and cost of the delivery of civilian personnel services. The evaluation framework was set forth by CPMS and agreed to by the Components. The plan requires Component baseline evaluations, periodic progress reviews, and post-regionalization evaluations. The ratio of Personnel Specialist to people supported was selected as the primary cost measurement. Efficiency and effectiveness were defined as customer satisfaction, process cycle time, and regulatory compliance. The baseline evaluation plan requires that each Component track its current performance. The baseline data were collected to enable Defense to determine whether the modern system and business strategies are achieving predicted cost and performance improvements. Until regionalization and modernization efforts are complete, the data will not support a conclusive evaluation.

DoD is in the process of establishing standardized metrics with standard definitions. The modern DCPDS has a productivity measurement module with the capability of recording and storing data about key events that occur in the HR process. The functionality of this productivity module will allow all DoD Components to capture performance data in a standard automated manner. No baseline has been established using this particular productivity module because the modern DCPDS has not been fully or sufficiently fielded. When properly fielded, this tool will allow the Components to capture and report a standard set of productivity data and provide the basis for improvement measurements across the Department.

Throughout the regionalization process, the Components have used comprehensive metrics systems based on DoD guidance to track the timeliness, reliability, and volume of their work. They use these tools to gather and relay information to managers, and to operate and identify resources needed for human resources operations. Though the tools used vary among the Components, there is commonality among the performance measures since the Components all perform the same core human resources functions. The collection of performance measurement data by the Components also meets the requirements to comply with the Government Performance and Results Act of 1993.

We believe that the DoD IG assessment in this area is premature and does not reflect DoD efforts to date. We recommend revision of this section.

III-B. Key Documentation for Milestone Reviews (Page 10)

Contrary to the statement that "The Milestone Decision Authority did not ensure that key documentation for the DCPDS was prepared for consideration during milestone decisions," CPMS provided copies of all required program documentation prior to each Milestone review. Further, we question the statement that "Therefore, it is unclear whether the original milestone decision was nullified. Overall, a final Milestone I or II decision by the MDA was not

documented.” We received a Milestone I decision on May 20, 1996, subject to submission of an approved Acquisition Program Baseline (APB), Operational Requirements Document (ORD), and Test and Evaluation Master Plan (TEMP) to the MAISRC. These documents were submitted and the Milestone I decision was not nullified. Therefore, there is no basis for the comment in the draft. (The table presented earlier in this document provides further details.)

III-C. Milestone Exit Criteria (Page 11)

The report states “The May 20, 1996, ADM provided Milestone I approval pending the submission by July 1996 of an approved Operational Requirements Document, an Acquisition Program Baseline, and a Test and Evaluation Master Plan. DCPDS Program officials should have developed, approved, and submitted the key documents for consideration before the Milestone I decision, but did not submit them to the CIO in final form until 4, 21, and 31 months, respectively, after the Milestone I decision.” As reflected in the table presented earlier, we disagree with this assessment. In late November of 1995, CPMS assembled binders containing all signed documentation and delivered copies to all MAIS members (read-ahead for a Milestone I and Milestone II approval meeting). Included in those binders were copies of the TEMP and ORD that had been signed and approved by both the Functional Program Manager and the Acquisition Program Manager in October 1995. In a December 1995 meeting with MAIS members, revisions to both the TEMP and ORD were directed. In February 1996, a meeting was held between Component representatives and AFOTEC to revise the ORD in accordance with AFOTEC guidelines. CPMS made the revisions to the ORD and the revised document was signed in April 1996 (later revised for Milestone III). The MAIS directed that additional signature lines be added to the TEMP. A series of meetings was held to get all parties to agree to sign the TEMP. It should be noted that most of these meetings resulted in only minor changes, while the overall intent and major focus of the documents never changed. Nevertheless, final approval was delayed.

As for the APB, the original document was completed in June 1995. The final document was delayed pending signature by Component Comptrollers to certify the funding lines. That final APB included the key performance parameters specified in the ORD, and was approved for all purposes minus Component Comptroller signatures. However, as the program continued, and the schedule changed, the numbers also changed. Instead of submitting an APB that had to be changed immediately, we were tasked with updating the numbers and running the document through the approval chain again. Unlike Component specific programs, this process took an extensive amount of time due to the number of players. The document did not change significantly other than the funding lines. MAIS members were fully aware of the process and were satisfied with the document. At no time was CPMS working in isolation from MAIS members. At every review, we provided updates on document status, and members always had the latest draft document.

III-D. Conclusion (Page 15)

Page 15 of the draft audit report states that “...GAO recently reported that DCPDS development was not compliant with the CCA.” This is inaccurate. In fact, GAO recognized that the CCA

Revised,
page 12Revised,
page 16

was not passed until after modern DCPDS development had begun. The GAO report did not assess DoD compliance with CCA; rather, it evaluated whether DoD had applied the principles of CCA, which, according to GAO, reflected widely accepted system acquisition management practices.

III-E. APPENDIX B. Defense Civilian Personnel Data System (Page 20)

Estimated Costs of the DCPDS Program.

We recommend that the DoD IG replace the Appendix B, Estimated Costs of DCPDS Program section, with the following estimated costs of the Regionalization and Systems Modernization Program. The total Regionalization and Systems Modernization program cost, which includes the regionalization of civilian HR operations and the modernization of the HR information system, was \$378M as of May 2000, with 93 percent (\$351M) of its program cost spent through FY 1999. The estimated cost of the modern DCPDS portion of the program, as of May 2000, was \$196M, with 88 percent (\$172M) spent through FY 1999. The systems modernization cost consists of the entire cost to complete development, conduct testing, and obtain functional implementation of the modern DCPDS, including sunk and future costs required to deploy the system to all sites. The systems modernization costs do not include DCPDS legacy systems operations costs. The Regionalization and Systems Modernization program's estimated life-cycle costs for FY 1995 through FY 2010 total approximately \$1.3 billion.

III-F. APPENDIX C. Timeline of Major DCPDS Program Documentation (Page 22)

Additional changes should be made to reflect the following Program Documentation Timelines:

June 1995	Original Acquisition Program Baseline Developed
October 1995	Original Operational Requirements Document Approved
October 1995	Original Test and Evaluation Master Plan Approved
October 1996	Initial Operational Requirements Documents Signed

Audit Team Members

The Acquisition Management Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report. Personnel of the Office of the Assistant Inspector General, DoD, who contributed to the report are listed below.

Mary L. Ugone
Wanda A. Hopkins
James W. Hutchinson
Virginia B. Rogers
James B. Mitchell
Jerry Hall
Kevin W. Klein
Genea S. Pack
Peter C. Johnson
Jacqueline N. Pugh